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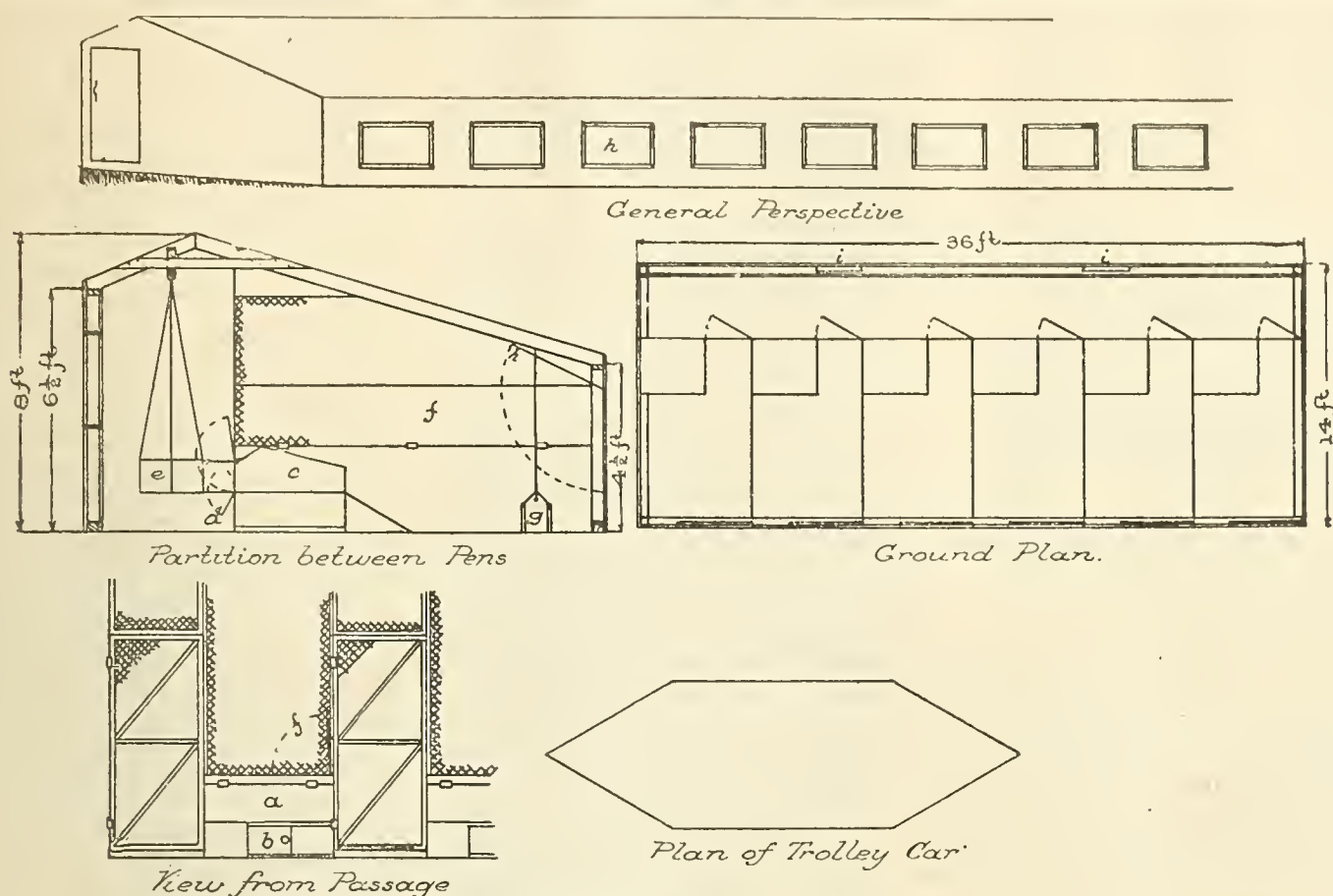
The FARM-POULTRY

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AN UP TO DATE BROODER HOUSE.

An Up To Date Brooder House Planned Expressly for the Up To Date Farm-Poultry Brooder.

Through the courtesy of Mr. John W. Hill, of Lynn, Mass., FARM-POULTRY readers are herewith presented with plans of an up to date brooder house, planned expressly by him to fit the new Farm-Poultry home made brooder. Mr. Hill expects to build this fall, on his place near Lynn, a seventy-two feet brooder house in accordance with these plans. This house is practical, and not theoretical. A temporary structure modeled on similar lines, was run successfully last winter, and gave remarkably good results.

The plans and specifications here given are for a brooder house 36 feet long. Such a house could be extended to any desired length, but in such case it is recommended that there be a solid partition every 36 feet, with a solid door in passage way—the door to be swung on double hinges, and to work both ways.

The house is fourteen feet wide, and has a double pitch roof, one side being considerably shorter than the other,—being three feet from the back to the highest part of the roof. It is intended to have a walk at the back, 3½ feet wide from the outside of stud, leaving a clear passage way of three feet width, after back wall is double boarded. This gives ample room for a man to work the trolley car, and to pass around it. The pens are 10½ feet long, and 6 feet wide, giving 63 square feet for pen and brooder. The brooder occupies 10½ square feet, leaving 52½ square feet scratching room for the chicks. Each pen and brooder will accommodate fifty chickens until ready to be weaned. This gives the house as planned a capacity of three hundred chicks.

The house is built of matched spruce, except outer back wall, which is of hemlock; the inner back wall is of matched spruce. Entire house is covered with Neponset red rope fabric, and back and roof has common

sheathing paper under the Neponset. The sills are 3 x 4 spruce; studs, plates, and rafters are 2 x 4 spruce, and rafters placed two feet apart. Studs for partitions are 2 x 3 spruce.

There are two 6-light windows (i) in rear wall to light the passage. In front are six windows (h), one in each pen. These front windows are made from waterproof sheathing cloth, (Abererombie's, New York), and are 2 feet 9 inches deep by 4 feet long. These windows are placed as far to the right side of pen as possible, for convenience in arranging the inside of pen, and also to get as much of the morning sun as possible.

These windows are built on frames of 2 x 1 furring, braced at the corners, and are swung from hinges to open as shown in cut. Even in the coldest weather these windows can always be opened on fair days, when the sun shines on that side of the house. This gives a "fresh air" house, and insures vigorous chicks. (Where it is intended to force chicks for market only, the windows could be made of 6-light sash, and the house provided with a heater to keep up the temperature of the house. Where the object is healthy hardy breeding stock, I prefer the house as planned).

The house has six pens, with a three foot alley way in the rear. Each pen has a door 2½ feet wide leading from alley into pen. This door is a light frame covered with 1-inch mesh netting. The partitions where wire is shown in cut are also wire netting.

In the "view from passage," in the cut are shown two doors in the board partition; the door (a) swings on hinges, and gives access to the door at rear of brooding chamber of brooder for convenience in cleaning out; the door (b) is a sliding door, which leaves an open space 14 x 12 inches for attending to the lamp. Here I differ a little from Mr. Hill's plan. I would prefer to have "a" and "b" all one door, occupying most of the space between the doors of pens. This door to be hung by ordinary window weights and pul-

leys, and made to open upward just like a window. A simple slide and fastening without the weights, will answer. This would allow perfect freedom in attending lamp and brooder, and when the brooder was in operation need not be wholly closed down—and so would allow better ventilation for the lamp. Another feature, which could be added without materially increasing the cost, would be to lower the level of the floor of the alley to a foot below that of the floor of the pens, and so avoid a good deal of stooping when tending brooders.

Between the pens is a matched board partition 27 inches high. To this is hinged an extension 20 inches high (f), which when in position, serves to make the close partition 47 inches high, but which, when the pen is not used for brooders, can swing down, and resting on cleats, makes a droppings board. This will be found useful many times, as the house can be quickly turned into a surplus stock or cockerel house.

The slide opening (g) in the partition is for convenience in transferring chicks from one pen to another. A similar slide communicates with the outdoor run; both slides are worked from the alley by means of a cord and pulley; (c) is the Up To Date Farm-Poultry brooder; (d) is the open back of the brooding chamber, opened for cleaning; (e) is the trolley car. The rafters are "trussed," as shown in the cut.

The trolley car hangs from ordinary roller bearing barn door tracks, such as can be bought in any hardware store. In place of the barn door hangers, use the "crescent," as used for store ladders. Measure your car, and the distance you wish it to hang from the "crescent." Get a blacksmith to make you two half-round iron rods of half-inch stock. Bend them so that they will meet at the "crescent," and give a hanger plenty long enough after passing around your car. The ends of rods to be bolted to "crescent" with a 5-16 bolt—each doubled rod bolted sepa-

ately, and forming two long swinging loops, one to pass over either end of the car, and support it. Bottom of car should have a cleat to catch and hold the loop. Trolley car should be a double prowed flat car, with low sides. It will be a great convenience in carrying food, and in cleaning house and brooders. The car is made pointed at both ends, for a long house, so that it will open the doors in partitions by pushing against them, the attendant being behind the car. For a 36 feet house the car is not a necessity, but it is a very agreeable luxury.

Expense Schedule.

6 pieces 3 x 4 spruce, 13 ft. long,	\$1.35
2 pieces 3 x 4 spruce, 14 ft. long,	.50
13 pieces 2 x 4 spruce, 13 ft. long,	1.40
16 pieces 2 x 4 spruce, 15 ft. long,	2.30
75 sq. ft. spruce 1½ x 1½, split diagonally for battens,	1.35
1700 sq. ft. matched spruce,	29.00
275 sq. ft. hemlock,	3.50
2½ rolls Neponset fabric,	17.50
175 lbs. sheathing paper,	5.25
Wire netting,	3.50
2 6-light sash windows, at 45 cents,	.90
Nails, hinges, etc.,	3.00
8 yards Abererombie's waterproof sheathing cloth,	1.20
100 sq. ft. 2 x 1 furring, for window frames,	1.70
Total,	\$72.45

Extra for Trolley.

Track for 36 ft., including trolley and car, \$9. Each additional foot of track, including brackets, 15 cents.

Every builder will find some trifling alterations and modifications whereby he can reduce or increase the expense as he pleases. The estimates do not include posts or labor.

The house is a fairly warm house, and is in no sense a hot house. It is just the kind of a building in which to raise good sturdy chicks that will be free from disease. The house will be warm enough for all practical work, and if the chicks are not cold and babied they will thrive and do better than they would in a building where they had less fresh air.

The brooders are built for both indoor and outdoor use, and in them the chick finds a warm exercising place outside the hover when it wishes to warm up, and feels disinclined to go under the hover. I have seen a similar house in active operation on one of the coldest days in winter, and I never saw better chicks than the ones it sheltered.

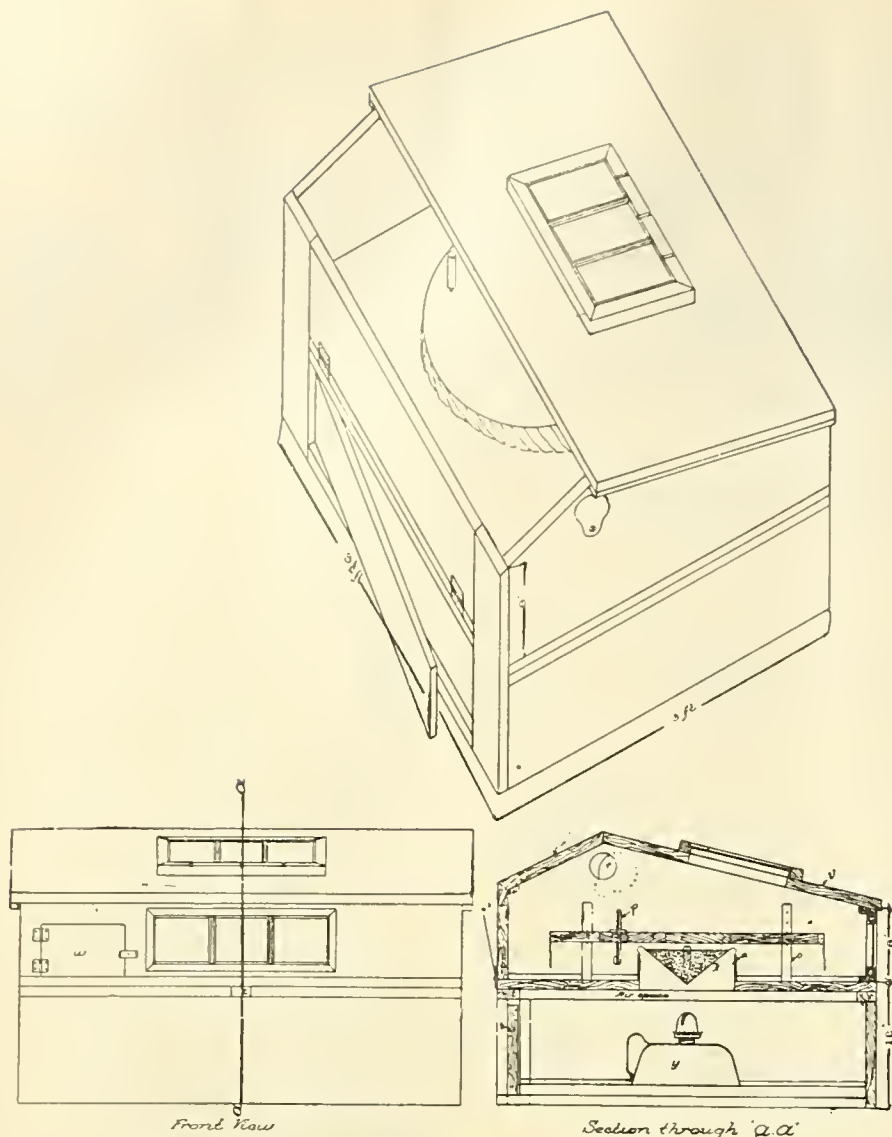
The cloth windows are intended to be open always while the sun shines on them. In windy winter weather, in addition to the high board partitions, it will be well to hang bur-lap curtains on the wire partitions, to moderate the breeziness of the house.

Some may prefer glass windows to the sheathing cloth ones, but the reason for using the sheathing cloth is that it always admits fresh air. When it blows and snows, and the windows are shut, fresh air finds its way through the cloth. In very cold localities glass windows would be preferable. Ordinary 6-light sash would answer, and can be had for forty-five cents each.

It is a good healthy house at a reasonable cost.

DR. WOODS.

If you wish to enter the field as a grower of broilers, then the more rapid the growth the better the returns. There's a chance for skill and energy in this business, and when applied there is profit for the grower. — *Maine Farmer.*



THE UP TO DATE FARM-POULTRY BROODER.

The Up To Date Farm-Poultry Brooder.

A good home made brooder that is up to date, and can be depended on to raise a good percentage of the chicks intrusted to it when rightly managed, is one that poultry keepers have wanted with that "long felt want." The brooder herein described as the Up To Date Farm-Poultry Brooder, will, I think, fill that want as it has never before been filled. As there is "nothing new under the sun," no claim of originality is made. The brooder simply grew of itself out of a series of experiments with some of the best brooders now in use. It has stood the test of two seasons under varying conditions, and has successfully reared ninety per cent of the chicks placed in it, when other brooders under like conditions were giving poor results with chicks from the same source. Very little difficulty was experienced in keeping the temperature where it was wanted, whether the machine was run indoors or out. Altogether, the brooder has proved itself so satisfactory as to be considered worthy of being named after FARM-POULTRY. It is a practical outdoor or indoor brooder.

It is an economical brooder to build, and the cost for material, where all new stuff is used, need not exceed \$5—(this including lamp). By utilizing waste stock it can be made for less than \$3 (labor not included). The one I now have in use cost me \$2.50. After examining this brooder, Mr. John W. Hill, of Lynn, Mass., made for me the accompanying drawings and expense schedule. The drawings show the makeup of the brooder so clearly that a novice should be able to build one without difficulty. Some improvements have been made on the original model, and the result is a brooder which, if made in accordance with the plans, will prove the best artificial mother up to date.

The brooder is made 3 feet wide from front to back, and $3\frac{1}{2}$ feet long from side to side. The cut shows a general perspective view of the brooder complete, with the smaller section of the movable roof removed; and the loose board, used for lamp door, partly open. The front view shows how the windows are arranged, and the door (w) by which the chicks enter and leave the brooder; (z) is the opening left for inlet of fresh air into hot air chamber; there are two of these openings, one opposite the other. These openings may

be made in the sides if more convenient. They are $1\frac{1}{2}$ inches wide, and the depth of the board width which separates the iron floor of the hot air chamber from the floor of the brooding chamber. In cold weather it will prove economy in oil and heat to partially close one of these openings. The sectional view shows the construction of the brooder in detail.

The lower frame for the lamp chamber is built first, and is made of sufficient height to accommodate your lamp, and leave a space of nearly an inch between the top of your chimney (if you use one), and the iron floor of the hot air chamber. Front and sides of this frame are one board depth, either 10 or 12 inches, according to your lamp. The back consists of a one inch strip connecting two uprights (one on each side), which are shown in the perspective view, and are 5 inches wide by 21 inches high. To the top of the three sides of this frame, which are of equal height, is nailed the iron floor of the hot air chamber. (See "air space"). This is a sheet of galvanized iron 36 x 42 inches. The .032 galvanized iron can be bought in sheets 36 x 84 inches, and one sheet is sufficient for two brooders. Above this iron floor is fastened a frame of strips of board 2 inches wide to form the outer walls of the heat chamber, openings being left for the inlets (z). This frame is one inch high, and rests on its 2 inch width. It is nailed fast to the iron in the back, and through the iron to the lower frame on the front and sides. On this frame is laid the floor (m) of the brooder proper, which is made of matched boards. Before the floor is made fast to the frame a circular hole must be made in the center to receive the iron ring which conducts the heat into the brooding chamber. This hole (in the wooden floor) is 9 inches in diameter. To the floor at the front and sides, one inch from the edge, is nailed a strip of lattice $\frac{1}{2}$ x $\frac{1}{2}$ inch material, which acts as a cleat for the sides of brooding chamber. The back wall of the brooding chamber is formed by the two uprights before mentioned, and a door (t) which is hinged to the brooder base.

The front and sides of the brooding chamber form a movable three sided frame, firmed together at the upper portion of the rear third by a strip of inch stuff. (This strip is only intended to strengthen the three sided frame, and prevent it from spreading when it is removed from brooder for convenience in

carrying). If preferred this frame could be hinged together so as to fold up when removed. In the front section of this frame is a 6 x 18 inch window, and a door (w). The door is hinged, and fastens with a button. The window is beveled at the top to shed rain, and is screwed to the frame. A cheaper and homelier way would be to set two lights of glass in the wood of the frame. In such case I should put the door for the chicks between the two lights of glass.

The roof is made in two pieces. The main or front section is movable, and is held in place by cleats, as shown in cut. When the brooder is in outdoor use this section of the roof (v) is secured to the sides of the brooding chamber by screws through the side cleats. The chamber sides are screwed to the base or floor cleats. A window 10 x 18 inches is provided in this part of the roof—(see cut). This window is screwed on, and is grooved to shed water. If preferred lights of glass may be let into the roof in place of using a sash; this will lessen the cost. This section of the roof is tinned with roofing tin, which is tacked tight about window, and cemented to prevent leaking.

Some object to a window in the roof, on the ground that it is cold when the sun does not shine, and when the sun does shine it makes things too hot. This theory is visionary. It is an easy matter to shade the glass with a piece of board, when the sun is too hot. As to letting in cold, I have been unable to demonstrate that to my satisfaction. In my brooder I have had no difficulty keeping the heat up, and found the brooder with a window in the roof preferable to one without. Most brooders are altogether too dark. A brooder ought to be light. Light and fresh air are essential to the health of the chick. For me, the window in the roof improves the brooder and increases its value. The rear section of the roof (u) is a movable board fitted and cleated, and held in place by the cleats, with the additional security of a hook and screw eye on either side to keep animals from breaking in at night. This small movable roof section is a great convenience.

At the upper and rear third of the sides of the brooding chamber is a ventilator (r), one on each side, and having a tin, galvanized iron, or wood shutter, as shown. The ventilating holes are $2\frac{1}{2}$ inches in diameter.

The heat conductor is a galvanized iron ring 9 inches in diameter, and $3\frac{1}{2}$ inches high. This is fitted into the hole in the wood floor of brooder, and held in place by three nails driven from inner side of ring. To this ring is attached the heat spreader, an inverted cone of galvanized iron, hung to the ring by three strap hooks of galvanized iron. Any tinsmith can make ring and spreader for thirty cents. This heat spreader (k) is kept filled with chicken grit or gravel, which serves to hold the heat, and keep the temperature more uniform. All around the spreader, (at base of cone), between it and the heat conducting ring, (except where the strap hooks are attached), is a half-inch space for the escape of hot air under the hover, which sets above this heat flue. The spreader serves to diffuse the warm air equally on all sides under the hover. The cold air comes in at (z), is heated in the air chamber, and passes up through the heat flue, to be diffused under the hover, insuring a constant supply of pure fresh warm air under the hover. The ring is wound with a triple thickness of felt, which entirely covers in the metal parts, and does not conduct a sufficient amount of heat to make the chicks crowd around the heat flue. It is important that the iron ring be wound with felt or some insulating material.

The hover is circular, and is 28 inches in diameter. It is made of matched stuff, and has no ventilating hole, as none is needed. A hole is made for the thermometer, and three holes for the hover legs; (p) is the thermometer, and (o) the legs. The legs (three in number) are ordinary broom handle, and are drilled so as to be adjustable from $4\frac{1}{2}$ to $6\frac{1}{2}$ inches in length, the hover being held in place by nails passed through the drill holes. A double thickness of slashed felt is used for hover curtains—(any kind of cloth that does not fray easily will answer). These flaps come down to within half an inch of the floor when the legs are at the $4\frac{1}{2}$ inch length.

The lamp chamber has a $1\frac{1}{2}$ inch ventilating

hole in the side close up to the iron, near the front of the brooder. When the brooder is used out of doors this hole should be protected by nailing a tin cocoa box over it to prevent the light from blowing out. Cut through the center of the broad side of the cocoa box from top to bottom; turn these end pieces out, and bend so that open side can be nailed next to the hole; then nail the box on, bottom up. The door to the lamp chamber (s) is a loose board, which rests in cleats at the ends. It fits loosely, and leaves a space of half an inch at the top the entire length of door for ventilation. The temperature of the lamp chamber and that of the brooder can be controlled in part by opening and shutting this door; also by the lamp flame, and by regulating the inflow of cold air at (z).*

The lamp question is a problem each maker will have to settle for himself. After many experiments, and trying many varieties of brooder lamps, I am convinced that the lamp with the water pan is in no way superior to the one without. For the most part they are made with heavy iron castings, which do not benefit the lamp in the least degree, and only serve to heat the oil and render explosion more easy. The burners that do not need chimneys all have one failing—they heat badly at the wick tube. With a good grade of oil, and care in keeping the lamp clean and full of oil, there is little danger of explosion; but even with good care I have had two explosions with lamps having the improved water pan attachment. This water pan, by the way, is a nasty sloppy nuisance. The lamp I have had the best results with, and the least trouble, is a common tin lamp, (made from a tin pan), holding three pints of oil, and having a common kitchen lamp burner with a glass chimney or a chimney of Russia iron, (the iron chimney is best), having an isinglass opening in front to view the lamp flame. Such a lamp I can get made at the tin shop for fifty cents. It does not get very hot, and with good care and good oil there need be no more danger than from any house lamp. If you use an old wick and the same old filthy burner for several seasons, you must expect trouble.

Expense Schedule.

Lumber, 70 sq. ft.,	\$1.20
14 sq. ft. (MF) roofing tin,	.70
10 x 18 window,	.35
6 x 18 window,	.35
Lamp,	.50
Galvanized iron for heat chamber,	1.12
Gal. iron ring and heat spreader,	.30
Felt, hinges, nails, etc.,	.48
Total,	\$5.00

For fifty cents sufficient paint can be purchased to give the brooder two good coats. This is advisable if it is to be used out of doors. If the iron floor of the air chamber shows a tendency to belly down it should be supported by a strap of iron ribbon run beneath it, in the center, from front to back, or by an arch of same material. Fifteen cents will buy all the iron ribbon needed, and also pay for having it bored for screw holes. Ordinarily the sheet of iron will not need any support if it is firmly secured to the frame. Galvanized iron is used because it does not rust out. Pine lumber is recommended for making the brooders, as it is not so liable to warp as spruce. A fair grade of clear pine, good enough, can be purchased for about the same price as spruce. Sometimes it is possible to secure a pine wood packing box for twenty-five cents, containing enough material for two brooders. Again, if you know a roofer, you can often get second hand roofing tin for nothing.

The tin roofing of the larger section of the roof projects over the joint with the smaller section, and so prevents a leak at this point. The door at the back of the brooding chamber makes easy work when cleaning the brooder.

It will be found convenient to have a slide for the lamp. If one is used there should be a hole in the board slide for the lamp to sit in. A strap of tin across the bottom of the hole will keep the lamp from going through. If the lamp sits directly on the slide it will be more apt to get hot. If you are not afraid to bend your back it is a good plan to do away with the slide, and let the lamp sit on the ground, this will insure a cool lamp, even if you have a poor burner. The lamp chamber has no bottom.

The brooder is meant to sit on the ground,

and not sunk in it. The best kind of an inclined plane for the chicks to run up and down on is a mound of earth built up to the door of the brooding chamber. The next best is a plank carpeted with burlap to give the chicks a foothold. If a plank is used be sure to cover in the space beneath it, so that the chicks cannot get under it.

Litter the floor of the brooder with cut clover (chaff or mow sweepings will answer), a little earth, and some chicken grit, mixed. Don't have the litter too deep, and don't be afraid of bottom heat. There will not be any too much bottom heat in such a brooder. Clean the brooder often, and keep it clean.

When the brooder is used indoors the board serving for lamp chamber door should be removed, and need be used only in extreme cold weather. When brooder is used out of doors, the heat of brooding chamber can be lowered by leaving the lamp chamber door open, as is shown in the cut. If on a cold windy day the heat does not keep up well, close the lamp door tight, (it leaves a space above it the length of the door for ventilation). The brooding chamber can also be made hotter by partially plugging one of the inlets (z) which supply cold air to air chamber.

The brooder should be placed in a spot sheltered from the sun; under a tree in the orchard is the best location for an outdoor brooder. When run in a warm house it will be advisable to remove the smaller section of the roof, and replace it with a wire screen.

For the first two weeks keep the temperature about 90° F.; variation from 85° to 95° at times, will not hurt the chicks. Gradually lower the temperature until the chicks are able to do without artificial heat. In cold weather this will be at from five to eight weeks; in warm weather they will need no artificial heat after the third week.

Feed the chicks in the brooder, (remove hover when feeding), the first week, to teach them to come into brooder. In warm weather let them be free to run a little way out of the brooder from the start. In cold weather keep them confined in the brooder for the first day only; after that allow them a little more freedom each day, until they have the run of the pen, and on sunny days a run outside. Never put chicks into a brooder until you are ready to feed them; give them their first meal there.

Pay as much attention to the care of your lamp as you would to a good lamp used in the house. Keep it filled with good oil. Filling the lamp morning and night will give better results than filling once a day; but fill it every day, anyway. Change the wick frequently. DR. WOODS.

Why Not Eggs and Meat?

It is a constant source of surprise to us that so many beginners in poultry raising seem to think eggs alone is the sure road to profit, and the number of letters coming to our desk which ask questions about "eggs alone," prove that a great many start in the business with but one idea, and that idea is the profit there is in egg production. Why do they not see that there are two sides to the question? Why cannot they understand that with "meat" added to their salable product they have by so much increased their sales? Eggs are all right so far as they go, but with eggs and meat we have a larger business and better profit. Here are two recent examples of the letters mentioned:—

"Would you please tell me what breed of fowls you consider the best for laying—that is, which will give the largest profit where eggs alone are the object?"

"Kindly inform me whether the Houdan is a fowl that does not readily 'sit' at all, and also is the Silver Laced Hamburg of the same class? My purpose is to ascertain the relative merits of these varieties as compared with others, for engaging in the business with a view to selling eggs simply, and for this purpose wish to find a breed of fowls that will continue to lay, and not sit, if possible, throughout the year."

The writer of the last letter evidently thinks that the non-sitters lay continuously throughout the year, when, as a matter of fact, they produce no more eggs (apiece) in a year than some of the brooding varieties; they take "rests" from egg production, and those rests might be more profitably employed in incubat-

ing a clutch of eggs than in sheer idleness. If the non-sitters would lay three hundred eggs each in a year, as against the great laying broody varieties only laying two hundred eggs each in a year, there would be a decided advantage in the greater number of eggs of the non-broodies; but, unfortunately, they do not. The best average laying by non-sitters is Mr. Wyckoff's one hundred and ninety-six eggs each from about six hundred White Leghorns, (see "A Typical Poultryman," page 94, March 1, '99, F.-P.), and we have equally good averages from Barred Plymouth Rocks and White Wyandottes, while individual pens have exceeded that figure, as instance Mr. F. E. Woods' White Wyandotte pullets that laid two hundred and ten eggs each within a year, and the Rev. Mr. Buckingham's White Plymouth Rock hens which laid an average of two hundred and fifteen eggs each within a year.

Not only will our middle-weight "American" varieties that have been bred for egg production, lay quite as many eggs each in a year as the non-sitters, but the Plymouth Rocks and Wyandottes, considered as egg producers alone, will pay a better profit, because so many more of their eggs are produced in the late fall and early winter months, when they bring the high prices. A study of the Experiment Club tables is instructive in this connection, showing that the bulk of the eggs laid by the non-sitters were laid in the months of lowest prices, namely, March, April, May, and June; while the American and Asiatic varieties were producing a fairly good number of eggs in November, December and January, when eggs paid the "creamy" profits. If one carefully studies the situation with these facts before him, he will realize that the varieties which go broody pay a better profit from eggs alone than do their non-broody sisters. To be sure, there is the bother of "breaking up broodies," but if one goes about it systematically that isn't so great a task, after all.

But the most important consideration is the sale of meat. The non-sitters are worth very little to sell to market; indeed we have again and again seen flocks of them refused by the poultry buyer, who said he wouldn't dress them and pay express charges to market for what they would fetch. Not long ago we visited a poultryman who had bought eggs of his neighbors for hatching market chickens; he had sold at a fair profit all of the P. Rock, Wyandotte, Light Brahma, and R. I. Red chicks, but had about seventy-five "scrub Leghorns," as he called them, and get them fat enough to kill, he couldn't. He sent two dozen to market, and they returned him just about enough to pay express charges and picking, and he was eating the others as his table could take them. These are extreme cases, no doubt, but they illustrate the point.

Contrast this with the substantial returns from the sale of Wyandotte or Plymouth Rock hens, when they go to market. They will average to bring about fifty cents apiece, and that sum is a decided addition to the yearly returns from a flock. Wyandotte and Plymouth Rock chickens are always salable, from a pound weight up to maturity, and for market chickens no better stock can be found. Most poultrymen have incubators and brooders; by starting the incubators six or seven weeks earlier a couple of hatches can be turned out, and raised for market, fetching in a goodly return, and they are out of the way of the chickens raised for stock, which come along later.

As we said before, we think the man short sighted who doesn't consider, and work for, the profit from the market poultry side of the business, as well as the profit from eggs. If he was losing some part of the egg profit by having an eye on the poultry side, he had better stick to the eggs; but when he can make quite as much, or even a little more, from eggs, while keeping the eye on the meat profit, isn't he blind to his own best interest not to do so? It is like a railroad working for passenger business only, and neglecting the freight business. Everyone who has studied the problem knows that the best interest of the railroad is served by working for both branches of business; and it is precisely so with poultry raising—the best all around profit comes from working for both eggs and meat.

The Greatest American Breed.

It is difficult to combine all the known qualities that fowls are expected to possess in one breed. No one has succeeded in breeding up to this particular standard yet. When any one wishes to start raising chickens, naturally the question rises as to which breed to select. There are, of course, a great number of breeds to choose from, but in reality only a dozen which are practical money makers. Whether a person keeps poultry for fun or for business, he wants, above all things, producers.

Producers do not mean, strictly speaking, layers; otherwise he could find Leghorns or Minorcas to his fancy. The average person, be he man or woman, looks for useful qualities above all else. Eggs, meat, and breeding the young, or natural incubation, are three qualities which we find combined in a few breeds. Cochius, Brahmas, Wyandottes and Plymouth Rocks are examples of breeds which combine all these. These are favorites as money makers, and also because of their quiet habits. No high wire fences are necessary to confine them or shut them out from the flower garden or growing crops. All four are excellent mothers, and hatch and rear their young carefully and well. The four breeds contain a number of varieties; which to select is entirely a matter of fancy.

Of the four, my personal fancy tends toward the Plymouth Rocks—Barred, White or Buff, it matters little; they are all Rocks, and as such have the same nature and same qualities. That they are popular beyond all other breeds, is proved by the vast number of them kept throughout the land.

The old original Barred Rock, as everybody knows, is strictly an American breed, a cross of the Black Java and American Dominique. The result of this famous cross gave us a chicken which for many years has stood the test of all climates, and has been kept by all sorts and conditions of men. The poorest farmer and the wealthiest banker alike praise them. They suit all classes. Plain in plumage, admired only by those who truly love them, they seem to have a business air about them which stamps them purely American. Today they are more kept and more sought for than any other breed. This is fairly good evidence that they have not lost in popularity as the years have rolled on. A breed that has stood the test for so many years must have intrinsic value.

It must not be supposed that they have not improved. The Barred Plymouth Rock of today is a different specimen from that seen ten or fifteen years ago. In plumage they have become actually beautiful compared to what they were formerly. The greatest gain, however, has been in earning qualities, chief of which is egg production. Carefully bred as they have been, I will venture to say that they will lay as many eggs as any other breed, and many more than the so-called natural layers and non-sitters. As they possess, like many heavy breeds, incubating tendencies, they naturally suffer in comparison with non-sitting breeds, but as an offset to this, I may instance that they begin to lay early, and after hatching a brood or so of chicks, continue to lay late. It is from this very quality of early and late laying that famous strains of layers have been made. Since the increased use of the modern incubator, many flocks of Barred Plymouth Rocks have had the broody tendency almost entirely bred out of them, thus increasing their egg yield.

Hardy by nature, they seem to thrive everywhere. In confinement they do wonderfully well, if carefully fed. It must be understood, however, that they cannot stand crowding. Ten hens will lay better in a limited space than a greater number. They scratch vigorously, and need a good floor space in which to exercise. They are slow and easy feeders. They consume but a small quantity of food, if compelled to exercise to obtain it. If overfed or carelessly cared for, they will, like all heavy breeds, take on flesh rapidly. The chicks are very strong, grow very fast, and mature rapidly. They make the very best broilers, and are not surpassed by any breed as roasters.

In late years the other two varieties, White and Buff, have made strong bids for popularity. These have an additional quality as broilers over the Barred in the absence of black pinfeathers. This may seem a small matter to

most people, but it is of considerable consequence to the dealer or market man, in that it presents a more attractive dressed carcass. Some assert that these last varieties lay more eggs than the old Barred. I have never had any actual proof of this, although it may be so. Whether they be Barred, White or Buff, they are all Plymouth Rocks, and as such possess the good qualities of the breed. All fowls are, under the many different conditions to which they are subjected, more or less neglected—not by the careful fancier, however, who prizes each specimen and carefully notes its pedigree, but by the average breeder and small farmer. It is useless to enter into the details of management. It is enough to say that neglect will creep in, whether by accident or design, and I honestly believe that the Plymouth Rock holds its rank today as the most popular fowl in America, simply because it can stand neglect better than any other breed.

This can be well illustrated by observation through the small farms in the west and south. Here we find the minimum of care producing satisfactory results in this breed. If we travel through New England and New York state, we find, as a rule, the maximum of care producing naturally the maximum of satisfaction. What a wonderful breed, therefore, are these Rocks that can stand such opposite conditions and yet give satisfaction.—E. O. ROESSLE, in *Country Gentleman*.

Some New Brunswick Poultry.

Mr. S. Jones, of Sussex, N. B., has experimented with many breeds of fowl, but finally settled down to six that he believes to be the most profitable, hardy, and give the best results to customers. They are the Barred Plymouth Rocks, White Plymouth Rocks, White Wyandottes, White and Brown Leghorns, and Black Minorcas, three of them general purpose fowl, and three non-sitters and extra layers. He has had four matings of Barred Plymouth Rocks, and one each of good size of the other varieties, the Barred Plymouth Rocks selling in that proportion to the other breeds. He made an experiment this past winter which may be of interest to our readers. He selected two fine pens of Barred Plymouth Rocks of equal number, twelve birds each, putting one pen in the long poultry house without any scratching shed attached, but supplied with plenty of good litter to scratch and hunt for all their grain food, and the other lot in good sleeping quarters with an open front scratching shed attached, where they had to scratch for every grain they got. The pen of fowl kept in the scratching shed plan house laid fully fifty per cent more eggs through the winter, and the winter was the most severe for many years. More than this, the eggs were more highly fertilized, and hatched better, with the chicks ever so much stronger this spring than the other pen. He thoroughly believes in the scratching shed plan. Mr. Jones wintered one hundred head of first class breeders, got lots of eggs all winter, had a grand egg trade for hatching this spring, has hatched out about four hundred chicks for himself, and they are coming on finely, with very many promising ones among them. He writes that they are the highest class stock he ever hatched.

We have had the pleasure of personally examining Mr. Jones' poultry houses and stock, and can bear testimony to their quality as well as his skill. He is a born poultryman, and must succeed. Such breeders are public benefactors in furnishing object lessons to neighbors. We are pleased to note his success, and hope to again have the opportunity of looking over his birds.—*Maine Farmer*.

Shade for Hens.

No animal can keep in good healthy condition when compelled to remain all the time in the hot sun. Those who want prime eggs, as well as the most of them, should see to it that shade is provided in some portions of the runs where the hens may burrow and keep cool. It is simply cruelty to neglect this. If possible let the runs include the orchard, or especially the plum trees, but if this cannot be done provide artificial shade in abundance. The hens will appreciate this, and produce enough more eggs to compensate.—*Maine Farmer*.

Rhode Island Reds, and Real Poultry Farming.

WRITTEN FOR FARM-POULTRY.

Rhode Island Reds were originated at least twenty years ago, by farm poultry keepers, who had but one object in view,—to produce at the least expense eggs and dressed poultry that would bring the best market price. These men were not the sort who could build expensive poultry mansions, more ornamental than useful, and stock them with beautiful and highly cultured fowls, raised regardless of cost for food, care or quarters, and which would quickly degenerate unless maintained in the same fashion. They were not in it for amusement or diversion. Their stock must give results under their inexpensive common sense care. It must be hardy, able to adapt itself to the farm, keep healthy, not require too much attention, and give a good return for food consumed. The product must be acceptable in the very best markets in order to bring the best price.

I cannot say how much time was spent trying the different varieties of poultry then to be obtained before something satisfactory was secured, or which breeds or crosses were discarded as unsuitable. The fancier who takes up a variety for pleasure or for profit through other than its food products, will cherish the breed he likes and selects, without regard to defects that would cause a poultry farmer to discard it immediately. I suppose that the sluggish, heavy, easily over-fattened kinds, although very hardy, and layers of large tinted eggs, were found not to mature or lay early enough, or not wide awake enough to take care of themselves under the conditions under which they must be kept; that the small everlasting layers were not satisfactory, because they did not lay the large and tinted eggs that were even then demanded by eastern city markets; neither did they stand exposure well, or make satisfactory dressed poultry. These small, active, nervous fowls were also altogether too flighty as sitters and mothers. The sluggish breeds were excessive eaters, and became unprofitably fat under the methods followed. Although a combination of the hardy Asiatics and active egg producing but tender breeds gave better results, yet they were rather too narrow bodied and leggy to make ideal dressed poultry. This mixture took no greater hold on the people here than it has in many other parts of the country where it has been tried. It was not until the addition of Malay Game blood to this material that a combination was secured that became popular. Then it took on the long full breast, short leg, and plump body, that now distinguishes the genuine Rhode Island Red.

After the addition of the Red Game blood, the demand for the red males from these flocks became quite general; they gained their present name, and soon influenced the farmers' flocks throughout that section of the country. We will not venture to say how much Cochin China, Shanghai, American Dominique, or Malay Game blood the original stock possessed, or how much Buff Cochin, Light Brahma or Brown Leghorn has been introduced since. Probably some of the original blood has been maintained by exchanging males back and forth, with little addition of outside blood. They gave satisfaction then, and have given more and more every year since. Wherever their merits have become known, wherever they have had a trial on the farm, they have held their own, and have spread to adjoining farms.

Another factor that has multiplied the value and popularity of the breed—just about the time, or soon after they were originated—the colony plan of keeping unlimited numbers of fowls safely by scattering houses all over a large farm, was beginning to be taught, and was tried by farmers in this section of the country. Being experienced and practical men, they detected the impractical part of the scheme, and substituted their own common sense and less expensive methods in part, and made a success of it. As they had vast pastures, and were a long distance from railroads or cities, the product was the cheapest to transport of anything, and they found it the most profitable business they could engage in on the farm. Very soon farmers who had formerly kept but thirty or forty fowls in their barn yards, were keeping several hun-

dred on the colony plan, with just as much or better success.

A few years later those who had first gone to keeping a few hundred had eight hundred or twelve hundred, and almost every farmer in that region had two hundred to five hundred hens. The business has become more general every year since, and about everyone in that remote section makes poultry keeping on colony plan an important part of their farming. It astonishes the town poultry keeper to see poultry kept in such numbers, and even more at the slight amount of labor with which it is done. They make no more work of caring for eight hundred or one thousand hens than the village poultryman expends in caring for one hundred or two hundred. The pasturage goes a long way in lessening the grain bills. I know of one farm where two thousand, and another where three thousand hens are kept on this plan during the winter, for egg production, and they have been successfully managed for many years. Moreover, the flocks are cared for by cheap Portuguese laborers. The latter farm is never heard from through the papers. The owner prefers to keep it quiet. We believe there is no section in the world where more poultry is kept in same area, where poultry keeping is followed by such a large proportion of the people, or where fowls are so generally kept in large numbers. About all follow the same methods, and learn of each other, as many learn to raise farm crops. Instead of giving up the business, they extend their business yearly, and new ones are continually going into it, and have fair success. Under these methods the majority succeed, instead of the few.

This success, however, is not wholly due to their methods, abundant grass pasturage, and free range, but largely to the use of Rhode Island Red males. They have not only followed common sense methods, but have the practical poultry stock just suited to their purpose. Nine men out of ten, I believe, if they had tried the same scheme separately, and used the average standard high scoring pure bred stock, would have made a failure of it. Luckily the pioneers had the right stock to carry out the plan and make it go. The Rhode Island Red has made possible the upbuilding of the great Rhode Island colony house system of poultry keeping. This same system, with its liberty, free range on grass, etc., followed for so many years, has given the breed a constitution and a training that makes them wonderfully vigorous, hardy, and profitable. It has especially fitted them to look out for themselves, and thrive on the farm; taught them the natural instincts and habits which some breeds of domesticated poultry have partly lost through confinement. In spite of lack of care in breeding, and careless introduction of all kinds of blood, they have maintained with such liberty qualities that make them worthy of being introduced to every farm in the country.

I am willing to admit that from the fanciers' and pure breeders' standpoint, the majority of R. I. Reds are mongrels. I know no large egg farm where they are selected or carefully bred as all pure breeds must be to entitle them to the term. The very men who keep so many of them have had no definite idea what the correct type should be. They pay little attention to breeding, except to get a fresh lot of Red males for their flocks every year or two. Little or no attention is paid to combs, and none to undercolor. If the males are red, do not have white feathers, are stocky and rugged looking, and come from a lot that did extra well the previous season, that is all they require. We never knew any of them to select their best colored hens or pullets and mate them with their choicest males. Anything in the line of a hen goes. As they are apt to buy whatever they can get, as far as breed is concerned, when they wish to fill up empty houses and have not raised enough pullets, the white, black and blue barred pullets that have been bought may be seen scattered among the flocks. The result of such crossing can be seen in the progeny. Some nice looking red hens may be from a Red male and a Langshan or Brahma hen, having taken after the male. Sometimes such birds, owing to the very strong male influence, may breed better stock than would be supposed possible, but this is not what the pure breed

fancier would be satisfied with, and is also a little too uncertain even for the broiler man or market raiser. Yet the Red males' influence will overcome anything in time, provided no foreign blood or different breed is brought into the flock.

With these egg farmers, to have the houses full and the hens all laying, is of much more importance than purity of stock. If they keep a preponderance of Red blood through the males, and the stock lays well and dresses well, they are satisfied. The pure bred fancier who looks over the Reds on the majority of such poultry farms, will turn away in despair at the general average, and want none of it. Passable birds from his standpoint are hard to find. Birds that have been properly bred for several generations are few in number, and located far apart; yet there never was more promising material to work with and make a satisfactory beautiful and useful pure breed.

Their great and fast growing popularity previous to any extensive advertising or publicity, show they were winning on their merits. I have long advised farmers who did not want standard bred show stock to cross pure breeds or keep Rhode Island Reds, but since I have been familiar with the improved strains have also advised fanciers to take them up. What has been done to make them a pure breed in place of a mongrel, has been accomplished by a few fanciers, and mostly by town men. By carefully selecting the females as well as the males, and careful mating, and by discarding all birds that do not breed true, they have made fast progress, and done wonders in a few seasons. They have improved the color of the single comb strains, and pretty much bred out the tendency to feathered legs. The only drawback is that the town men have to coop and yard them more. While I believe that as yet they have not lost in vigor, I fear that if this confinement in small yards is continued, and the stock bred too much to feather and exhibition points, the qualities due to free range will be lost, and they will be no better for business than certain strains of pure bred show birds. While no combination of breeds could be better suited to eastern farms than that of which the R. I. Red is made, we believe that its hardiness and excellent qualities are no less due to the system under which it has been reared and kept for many generations.

Their home is in a flat country, having heavy wet soil. Their houses have many open cracks on their south side, and are generally scattered about on rather wet land, that will be covered with grass during the hot dry months. In the spring it is pretty wet, often overflown much of the time. These fowls are accustomed to range about in an inch or two of water at this time, and seem just as contented, happy, and thrifty as one could wish. They do not, therefore, suffer much from dry overheated ground at any season, and have plenty of green food when needed most. For this reason, if they have liberty, it is not so necessary to locate their houses in a sand bank to avoid sickness. The chicks having been raised in the old fashioned way, without pampering, and in such large numbers for so many generations, the weak ones have died. Only the strong and vigorous have survived. Of the grown fowls ninety-nine one-hundredths of them have received no medical treatment. The ailing ones have been killed, instead of being preserved to reproduce their like. This course, long followed, causes only the healthy to survive, and if they inherit anything at all it is surely health, hardiness, and great vigor.

Some flocks on farms are pretty much all straw colored. In others half or two-thirds of the hens have deep bay color with dark hackle, and black tip to tail, the rest being of a mahogany brown and white, while the males have a cherry red back and shoulders, and red or orange hackle and saddle feathers. Other flocks have hens having much black in wings, and mottled or brown feathers in back and breast, while the males will be very dark, and have considerable black. On some farms one-third of the stock will have slightly feathered legs. On others there will be plenty having downy legs, but few that would be classed as feather legged. Birds naturally differ some in shape on different farms. Some have more of the nervous flighty blood;

in others Game or Asiatic blood seems to predominate. Some farmers prefer and keep mostly rose comb birds, and others have mostly single comb stock, and other flocks show as many pea combs as rose and single combs.

Fanciers have bred single comb stock the longest, and so that they come true to comb, and very red in plumage. Partridge Cochin blood has been added to some strains, but it has made them too large, slow to mature, and left an increased tendency to down on legs; also caused the plumage to be uneven or mottled in color. Other single comb strains have been bred with red plumage and clear red tinted undercolor principally in view, and to get rid of dark hackle and black in tail. Males with numerous side sprigs at back of comb have been used, provided they had the requisite outer and undercolor, and extra fine color has been secured at expense of size, shape, and defective combs in the males. Others have worked for and secured fine shape and good combs, but their birds run too light in color, and have too much dark undercolor. Much less has been done to perfect the rose comb variety and deepen their color. Some have been satisfied to breed their rose and single comb birds from the same pen; others have bred rose combs separately for one or two seasons, but have not yet made great headway in improving them. On farms where rose comb birds predominate it is noticeable that they come to maturity and lay earlier than some flocks of single comb birds that do not grow as heavy. We think that the rose comb variety is destined to become the favorite among northern breeders.

Personally I do not fancy the type having very large rose combs, such as are possessed by many Wyandottes, Hamburgs, and Rose Comb Leghorns, but more of a Malay comb—one that is low and smooth on top, instead of being studded with points or spikes. The pea comb birds occasionally found in some flocks will, no doubt, if selected and carefully bred be entitled to a place as a distinct variety.

When the R. I. Red standard was formulated, the various ideals were advocated by the different fancier breeders, and I am happy to state that a standard that places utility before all, and beauty points secondary, was settled upon for the time. I was also gratified that a slight lacing of dark in hackle of female, and black in tail of both sexes, was approved. The weight of Reds may be easily made anything the standard calls for. It would be very easy to breed them larger, (or, rather, heavier), than Plymouth Rocks and Wyandottes, but if weight is placed too high the breed will not mature and lay early, which now gives it its greatest hold over any other variety in the American class. The club standard calls for a weight of $7\frac{1}{2}$ lbs. in cocks, 6 lb. hens, 6 lb. cockerels, and $4\frac{1}{2}$ lb. pullets. They commence to lay from two to four weeks earlier than the other varieties of the American class hatched at same time, varying according to how large either are bred, and how handled.

I believe the R. I. Red breeders of the country should control the standard of the breed, and that other breeders should have nothing to say about what it should be. When it is bred more as an exhibition bird, and is judged at shows by fanciers more than now, the tendency will be to judge it from the fanciers' standpoint, and unless this tendency is opposed will eventually change its breeding. The salvation of the breed, however, depends upon its being bred in a way that will make it the best utility breed of the American class, except as regards size. If this is not done it may be in time laid on the shelf. Most R. I. Red breeders are now utility men as well as fanciers, and I think can be depended upon to fight it out on this line, and win. The breed should be bred to the club standard, and will be better off if never admitted to the American Standard of Excellence. Let us have and keep a natural standard, and make breeding for color simple and easy, rather than purposely difficult. The natural colors are the most beautiful. Then we can put in our fine work in maintaining and improving the type in a way to increase egg production, desirable market qualities, and ability to make the most of food consumed. I believe that in ten years the R. I. Red will be most popular on farms of any

breed of American origin, if not hampered by breeding to a wrong standard, or spoiled by too artificial conditions.

Improved R. I. Reds will breed as true or more so than modern Buff Wyandottes and Buff Plymouth Rocks, which were originally bred from light colored Reds, and continue to throw back to them. They also owe to this blood much of their unusual prolific and profitable qualities. Most fanciers will prefer, when they see good ones, a clear bright red fowl with black tail, and dark hackle in pullet to birds having a dull buff from head to foot. Previous to the formation of the new standard the tendency among some R. I. Red fanciers was to breed out all dark lacing in hackle of females, as well as black in wings and tail, because such birds sold for more money to Buff Wyandotte and Buff Plymouth Rock breeders. This has caused some strains to lose these general characteristics of the genuine Red, and left it no ground on which to stand except as a feeder for the new buff breeds.

The worst fault with most R. I. Reds is that hens fade out light in mid-summer, and still more when two and three years old. They are not, however, as liable to this as are the new buff breeds, and by continued selection, especially of the two and three year old birds that fade least, this can be, and has in fact been greatly overcome in certain strains. When Reds are carelessly bred on the farm, and hens of various breeds allowed to mix with them, the progeny will show the results in their imperfectly colored feathers. A good many good Red birds that are all right in other respects, will have almost black under-color beneath the beautiful red surface color; unless examined this will not show. This is a serious fault to the fancier, and should be, in fact, to the market poultry raiser who dresses his stock young, and wishes to avoid dark pin feathers. However, as most birds have more or less of this slate undercolor and material, having clear red beneath, and all right in other respects, most breeders will have to put up with it until they have been bred longer, or pay right well for the birds that are deep red outside and clear red to the skin.

Another fault that should be bred out as quickly as possible, is white in wing or tail. For crossing with common stock such birds may be used if you want to get your stock cheap, but for pure breeding they should be discarded, as their progeny will most likely be the same. Specimens having pronounced feathered legs will not be used by fanciers, although this is less objectionable than white in plumage. They are also all right for crossing and grading, and can be bought low. At present I look very leniently upon down on legs, and while I would much prefer perfectly clean legs in a breeder, would not turn down an unusually fine male or female for this fault. Not for years should birds showing a slight trace or even quite a little of it well up the shank be barred out. If this was done, or is done too soon, many of the choicest specimens will be discarded, the very birds that the breed needs to build it up along the lines that are laid out. One might clean up the legs very quickly in a few seasons if they should ignore all other qualities, or even those of utility, but this would be a detriment to the breed.

How do they lay? How many in a year? I am often asked. I was too busy getting settled last winter to keep individual records, but expect to have them next season, and in future. All I can say is that they have laid better than any fowls I ever had anything to do with, and that they lay large thick shelled eggs, and that the majority of them, and especially those from our choicest and best colored birds, are of a peculiarly handsome pink tint that pleases all our egg customers.

That the best birds according to the R. I. Red club standard are also the best for business and utility, my experience in showing dressed poultry at the last Boston show illustrates. My faith in the table qualities of R. I. Reds and in the desirability of showing dressed poultry at shows, was such that I went over my whole flock, then nearly two hundred rose and single comb birds, and selected those to be fattened and dressed for the show. They had been with much difficulty selected from many thousands, and

gathered together for breeding before the club standard was formed. The hens had probably cost me \$5 each on the average, time and traveling expenses considered. I selected three single comb pullets, three rose comb pullets, three single comb hens, and three rose comb hens. I had no males that could be spared. I naturally hoped to get what was wanted for killing among the less beautiful ones, or those that had off-colored feathers that would not show when dressed. In this I was somewhat disappointed, but as birds that would dress best was the object, I steeled my heart, and secured them. They had to have short legs, deep, long and solid bodies, short neck, a typical comb and head, and good colored feathers on neck. It was intended to leave the feathers on head, neck and wings, to show they were the real thing. They were selected about fifteen days before the show. Later, when those that were to be shown alive in competition and in display cages were selected according to the standard, much time was of course spent to get the best birds. After their selection they were compared with those in the fattening pens, and I came near taking some of the latter instead. There was, however, no time to fatten others, and I was bound to show dressed birds. As regards standard points and beauty, some of those to be killed were given the preference.

Of the twelve shut up, four had gone back in weight, instead of gaining. Those that were thrown out for this reason were just the ones that a R. I. Red fancier would have cared the least for. As such carefully picked birds were rare, and these eight worth to me \$35 or \$40, it took some sand to kill them and carry out my plan, but there is no question but what it paid and paid well. I was glad to have the public compare them with anything on exhibition in the dressed poultry department. In all points that a table fowl should have they were excelled only in size, that is, in my opinion. With these specimens the single comb birds dressed as well and looked as well as the rose comb birds. Their weights alive were four hens 5½, 5¾, 6½, 7½ lbs.; three pullets 5½, 5¾, and 6 lbs. They appeared to weigh much less. Our notes distinguishing variety, and weight of one pullet, are lost.

It was also noticed with interest by myself and assistants that the hens and pullets that were most satisfactory as sitters, and most intelligent as mothers during the past season, were those distinguished by leg bands put on while at the Boston show. They were also the ones that looked the smoothest, and kept their brightness of color best throughout the summer months, and spite of their maternal duties.

The chicks when hatched have down slightly varying from yellowish white to a red buff tint. As they grew it bleached out some. Their wing feathers and first coat of body feathers was light buff or reddish buff in color, and was gradually replaced by a second coat much deeper in tint. The light birds, as well as the dark, took on a much deeper shade when covered with their second coat of feathers. All breeders of R. I. Reds are advised to take great pains in culling, and to discard for pure breeding purposes all birds showing white feathers, black in surface color of back and breast, those having side sprigs on single combs, or much white in earlobes, and pronounced feathers on legs. Bills having reddish horn tint (not brown or black) are to be preferred to those that are clear light yellow. Legs should be yellow, but deep reddish rather than lemon yellow. A little of the reddish horn color, such as mentioned as being on bill, is welcomed on scales of toes and those low down on front of shanks. If care is not taken to thus breed them, what are now classed as good Reds will soon be looked upon as mongrels on account of the great improvement that will quickly come from the careful and scientific breeding which they are sure to receive.

Although to be on the safe side I warned egg customers to expect great variation in color, as well as a considerable number of feathered legs among the chicks secured, I have had, as a matter of fact, very few among the thousand chicks that we have nearly raised at West Mansfield that did not come true to variety as regards comb, while less than ten per cent had feathered legs or very much down. Their color had also been much more uniform than we dared to hope.

SAMUEL CUSHMAN.

The Egg Man in N. Y. Produce Review.

A Cuban exporter asked me the other day to suggest a reason why it was so difficult to procure strictly choice fresh eggs in New York at this season. I asked him if he found it to be a fact that there was any unusual difficulty in this respect, other than could be accounted for by the season and the natural difficulty of laying stock down in fine condition during hot summer weather. He answered that it certainly was so; that for export to Havana only strong minded and fresh eggs were desirable, owing to the severe test of quality given by shipment to tropical countries, and that he found considerable difficulty in obtaining such eggs except as they might be culled out of lines of eggs containing a considerable proportion of defective stock. He was of the opinion himself that the reason why uniformly fancy eggs are so hard to get is because there is not sufficient discrimination in the value of the different grades and qualities, and that for that reason shippers find it unprofitable to candle their shipments and pack the finest goods separately.

It has been hoped by a good many of the egg trade that official recognition of a superlative quality of eggs in the exchange grading, such as was made in the late revision of the egg rules, in establishing a grade of "extras," might tend to encourage a closer selection of eggs from shippers who have facilities for candling their stock, and that the bids for this high grade might be high enough in relation to ungraded eggs to warrant the shipment of such quality. So far there has not been sufficient experience to enable one to say positively whether or not this will be the case, but a few lots of eggs arriving have passed as "extras," and their selling value has been fairly indicated. It is therefore possible to compare this value with an estimate of the relative cost of laying such goods down in our market.

In making such an estimate it will, of course, not apply exactly to various sections, because of the various conditions under which eggs are received at different points, and the wide difference in average quality. Judging from the quality of the better class of ungraded eggs now arriving here, however, we may estimate the probable results of close grading, and egg packers can vary the figures according to their own local conditions. There are some sections in which it would appear to be impossible to put up a grade which would pass as extra at present judging from the generally heated condition of the goods arriving, unless improvements could be made in the method of collecting. Taking the better qualities of ungraded eggs, those which show a fair proportion of really fine quality, as a basis, we may figure about as follows: One hundred cases of fresh gathered firsts of this character would probably lose three dozen to the case, and if sold on the present market (June 29th) would be worth fifteen cents loss off, or say, \$405 net. If these goods were candled before shipment, and graded closely, the result would be probably about as follows, varying more or less in different sections: Perhaps sixty per cent, or sixty cases of "extras" would be obtainable. Of the ten per cent, or ten cases which would probably represent about the loss here if the goods were shipped ungraded, we may estimate that two-thirds would be rots, say about seven cases, and one-third checks (which are accounted one-half loss), say about six cases. This would leave twenty-seven cases of a high grade No. 2, including dirty and small clean eggs and stock which was too weak or shrunken too much to go in the extra grade, but which would show very light loss; such quality on the present market would be worth about \$3.45 per case.

The question of how much will a chick gain, is an interesting one. The following is about correct: The eggs weigh two ounces; the newly hatched chick weighs one and a quarter ounces; at one week old, two ounces; three weeks old, six and a quarter ounces; four weeks old, ten ounces; five weeks old, fourteen ounces; six weeks old, eighteen and a half ounces; seven weeks old, twenty-three and a half ounces; nine weeks old, thirty-two ounces; ten weeks old, thirty-six ounces; eleven weeks old, forty-one ounces. — *The Poultry West.*

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True strength consists in the union, the harmonious working together, of every part of the human organism. This strength can never be obtained if the blood is impure. Hood's Sarsaparilla is the standard prescription for purifying the blood and regulating the whole bodily machinery.

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BREEDING STOCK For Sale.

Having finished hatching for this season, I will sell the stock I have bred from in lots to suit. Must be sold to make room for the youngsters.

Barred Plymouth Rocks,

(Brown Egg Strain; "the business fowl of the 19th century").

White Wyandottes,

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—W. E. HOWE. When ordering mention breed. Price, 25 cts. per doz.; 40 cts. for two doz.; \$1.25 per 100. Send for cir. W. J. DECKER & CO., Leonia, N. J.

Mrs. Lewer's Conclusions.

[The following conclusions are appended to the series of articles on "American Fanciers," in *Feathered World*, London, Eng., which have been published in that paper since the visit to America, last winter, of Mrs. Comyns-Lewer, the proprietor].

"Although necessarily in the short time at my command only the most superficial acquaintance could be gathered of the American fancy, there are certain salient points which by comparison cannot but strike an observer moderately acquainted with the condition of affairs in this country. Some of these points, such as the differences existing between the American and British types of birds, I have already alluded to fully in my report of the three big shows—Toronto, Boston, and New York—which it was my good fortune to visit; others, perhaps, I may be allowed to dwell on briefly now.

"As a journalist I was particularly struck with the deference paid to advertisers in the matter of show reports, and honestly admitted as a necessity to me; a few of the American fancy papers, to my surprise, even carrying this so far as to only report the doings of their own advertisers, no other names being mentioned. This, to our British ideas, seems strange, and whether it was fancy on my part or not, I could not help thinking that the criticisms on the exhibits were generally far milder than they would be with us here. This may have its advantages in keeping everything amiable on the surface, but has its disadvantages in allowing faults to go unnoticed, which, if pointed out, might be remedied to the advantage of both the breed and exhibitor.

"In one sense the American fancy would appear to be on a far sounder foundation than our own, in that there is not such a wide gulf between *fancy* and *utility* as unfortunately exists here. The extremes in fancy points, such as heavy feathering on Brahmas (one of the utility fowls of the states), and excessive head points in Minorcas, Leghorns, etc., occur to me as only two of several instances wherein Americans do not follow the British lead in this respect. It should be noted that in connection with this combination of fancy and utility, at some of the largest farms visited, the breeding pens contained not simply average pure bred birds, but specimens which had won in keen competition at big shows.

"Another marked feature is the general attention paid to the laying qualities of the stock kept, and as a result, the great development within the past few years of the average egg yield per hen—some experienced men stating that they now consider an average of one hundred and seventy eggs per annum a by no means extravagant estimate, where proper care in keeping and feeding is exercised, and others placing the figure possible at two hundred with carefully bred and selected stock.

"No visitor to the states could fail to be astonished at the gigantic extent of many of the poultry farms existing there. Some of these, like the mammoth duck farm of Weber Bros., the poultry plants of Messrs. Nesmith, Hosmer, Prescott, Ellery Bright, Hunter, and largest of all, the Plainfield Poultry Farm, it was my good fortune to inspect, and I could not but be impressed by the magnitude of the business done and the head of stock run thereon. Of course, in these concerns all are not equally successful; but the fact that some of these big plants have been running for years, is pretty fair proof that, under skillful management, poultry can be made to yield a return when kept simply from the point of view of supplying eggs and chickens or broilers and ducklings for market, and the sale of good class sittings and pens of birds to farmers and others. That it would be possible to run similar establishments here under our existing conditions, I have the gravest doubts. Cheapness of land and timber, and the almost natural aptitude for converting the latter economically into excellent poultry houses and fencing, combined with other causes, such as the extent to which poultry is used as a food, and not as a luxury, as here, give our cousins at once a long start and a better market than is yet possible in this country. Climate, too, I suspect, must have something to do with the number of fowls

carried on the runs at these farms, flocks that in this country would, with every precaution, soon foul the area devoted to them, being kept year after year on the same ground without apparent evil result. The dryness and rarity of the American atmosphere, coupled with the purifying effect of the severe winters experienced, must be potent factors in allowing of what we should look upon as dangerous overcrowding under our more humid climatic conditions.

"In their knowledge of incubators and brooders, and the extent to which these artificial aids are utilized, some of the farms visited came to me almost as a revelation; one of these, the Plainfield (see *F. W.* of April 21st last), having under one roof no less than forty incubators, each of 360-egg capacity, with brooder houses on a similar huge scale. The attention, too, paid in all yards visited to every arrangement that might tend to economy of labor, was in marked contrast to some happy-go-lucky methods I have seen near home. From the passage way at back of a single row of houses, (almost invariably built on the scratching shed system, explained fully by Mr. Hunter in a previous special number), or running between a double row of the same, an attendant can feed, water, and collect the eggs from a large number of fowls without entering any of the houses, with a vast saving of time, and therefore money, over less carefully planned places. In larger establishments, like the Plainfield, a tramway runs from the food house above the outdoor runs for feeding, and a similar labor saving appliance for serving food exists throughout the principal buildings.

"The American government, judged by the state experiment stations, is awakening to the importance of the poultry industry, and I was glad to see during my visit to Toronto, that the Canadian authorities had no intention of lagging behind them. To mention only one of these state aided institutions, the Rhode Island agricultural experiment station, will be enough. Here, first under Mr. Samuel Cushman, and later under Mr. Charles O. Flagg, experiments of the utmost value in connection with turkeys and geese for market purposes, have been and are still being made. At others attention has been paid to the investigation of the diseases of poultry, and feeding on scientific principles; the results of these skilled labors being published from time to time for the benefit of the poultry keepers of the United States, whose labors produce, according to estimates, a cash value of £58,000,000 annually, or a sum slightly in excess of the value of the wheat crop of the country.

"The pigeon fancy, by comparison with our own, naturally does not show the difference that its sister hobby does; but in connection therewith there exists one point upon which I cannot speak too strongly. It is this, in my round of inspection of many lofts, and pleasant interviews with leading American pigeon fanciers at Boston and New York shows, I heard much to sicken me of the method wherein some individuals connected with pigeons in this country transact business with customers abroad. A clearer case of killing the goose that lays the golden egg, I never heard of, the veriest rubbish, some of which I saw myself, being sent out in return for big sums of money. Needless to say, these contemptible dealers are now getting known, for their names were on many lips at each show I went to, as were also in pleasing contrast those of true fanciers here who do their utmost to repay American confidence by sending the best of value for the cash sent. In their case they will find their reward in repeat orders and recommendations to others in need of birds."

Cracked Wheat for Young Chicks.

Some cracked wheat should be given to chicks even before they are a week old. It is the best exercise their digestive organs can have. Whole wheat will be eaten when the chicks are ten days or two weeks old, and should always form a part of their ration. It is especially valuable to make them feather quickly, the grain containing just the kind of material necessary for feather production. Where wheat is largely grown, the fowl find enough scattered grains about barns or stacks, so that young chicks hatched in mid-summer will become full feathered before winter, and will make early spring layers.—*Maine Farmer.*

Skim Milk as Food for Young Growing Chickens.

A Valuable and Pains-taking Experiment.

The fowls used in this experiment were twenty young chickens—ten Plymouth Rocks and ten Houdans. They had, previous to the beginning of the experiment, been allowed to run at large together, getting the same feed, treatment and care. The chickens selected were not uniform in size, but large and small were equally divided between the two lots. They were taken from two sittings, one brood about two, and the other one and one-half months old at the beginning of the experiment. The chickens were separated into two groups, known as lots 1 and 2, with five of each breed in a lot.

The food, care, and treatment of the two lots were identical, except that the fowls in lot 2 received in addition to the food given in lot 1, all the skim milk they would drink. Both lots were given all they would eat of a mixed food consisting of two parts crushed maize, one part bran, and one part ground oats. They were fed three times a day, except on Sundays, when an increased amount of food was given at the morning and evening meal.

Weights were taken of the amounts of food given each lot, and of the refuse left from day to day. Both lots were given all they would consume of cracked bone, cabbage, lettuce, and water, of which no record was kept. The weights of all foods and of the fowls were recorded in ounces.

The following table shows the weight of each chicken, and the total weight of both lots, taken on July 11th last year, at the beginning of the experiment:—

Table I.

WEIGHTS IN OUNCES. JULY 11.			
LOT I.—WITHOUT MILK.		LOT II.—WITH MILK.	
No. of Chicken.	Weight.	No. of Chicken.	Weight.
1	19.0	5	16.0
2	16.5	6	13.0
3	10.0	7	11.0
4	15.5	9	12.0
8	9.5	10	14.5
12	10.0	11	19.0
14	9.0	13	9.0
15	14.5	17	12.0
16	8.0	18	7.0
20	9.0	19	7.0
Total,	121.0	Total,	120.5

The above table shows a difference of one-half an ounce in favor of lot 1 at the beginning of the experiment.

Table II. shows the total food consumed for each week, and the weekly weights of fowls during the entire experiment of eight weeks.

Table II.

OUNCES OF FOOD CONSUMED.			
LOT I.		LOT II.	
Date.	Mixed feed.	Mixed feed.	Milk.
July 18	182.5	285.5	39.0
July 25	273.0	301.5	85.5
Aug. 1	344.5	317.5	162.5
Aug. 8	474.5	498.5	278.5
Aug. 15	412.0	449.5	233.5
Aug. 22	384.0	514.5	299.5
Aug. 29	408.0	556.5	216.25
Sept. 5	398.5	553.0	131.5
Total food consumed	179.8 lb.	217.3 lb.	90.4 lb.
WEIGHT OF FOWLS.			
LOT I.		LOT II.	
Date.	Weight in oz.	Weight in oz.	
July 18	131.5	152.0	
July 25	156.0	178.0	
Aug. 1	180.5	213.0	
Aug. 8	220.0	277.0	
Aug. 15	216.5	319.0	
Aug. 22	250.0	394.5	
Aug. 29	270.0	437.0	
Sept. 5	297.5	476.5	

‡ Combined weight of nine chickens.

No. 2 from lot 1 died August 18th, leaving only nine in the lot.

From the above table it is shown that lot 2 consumed 37.5 pounds mixed feed more than lot 1, and 90.7 pounds of milk besides.

In Table III. is given the weekly gain for each lot, and for each chicken during the experiment.

Table III.

WEEKLY GAIN PER LOT AND PER CHICKEN.

LOT I.—WITHOUT MILK.		LOT II.—WITH MILK.	
Date.		Av. gain per chicken.	
Total gain.	oz.	Total gain.	oz.
July 18	10.5	1.05	31.5
July 25	24.5	2.45	26.0
Aug. 1	24.5	2.45	35.0
Aug. 8	39.5	3.95	64.0
Aug. 15	24.5	2.73	42.0
Aug. 22	233.5	3.35	75.5
Aug. 29	220.0	2.22	43.5
Sept. 5	227.5	2.75	39.5
Average gain per week		2.62	4.46

‡ Combined weight of nine fowls.

From the table it will be seen that both lots made the greatest gains during the same weeks, viz.: August 1st to 8th, and 15th to 22d, indicating that both lots were alike susceptible to favorable external conditions.

In lot 1 there was slow increase in average gain, and it was very irregular throughout the experiment.

In lot 2 the increase in average gain was much more rapid, and continued for a longer period.

The mixed food consumed by the two lots during these periods, August 1st to 8th, and 15th to 22d, was greater in amount than during some of the other periods, while the amount of milk consumed was greatest during these weeks. From this it appears that the great increase of average gain of lot 2 over lot 1 during these periods was largely due to the increased consumption of milk at that time.

From Tables II. and I. it is also shown that during any period when there is an increased consumption of milk in lot 2 there is a corresponding increase in the average gain during those periods, and *vice versa*.

Table IV. shows the weights of each chicken in lot 1 and 2 at the beginning of the experiment (July 11th), and at its close (September 5th).

Table IV.

LOT I.—WITHOUT MILK.		LOT II.—WITH MILK.	
No. Weights.		No. Weights.	
chicken.	July 11. Sept. 5.	chicken.	July 11. Sept. 5.
oz.	oz.	oz.	oz.
1	19.0 43.0	5	16.0 53.5
2	16.5 ‡	6	13.0 52.0
3	10.0 36.5	7	11.0 46.0
4	15.5 39.0	9	12.0 44.0
8	9.5 26.0	10	14.5 50.0
12	10.0 29.5	11	19.0 68.0
14	9.0 27.5	13	9.0 38.0
15	14.5 38.5	17	12.0 47.0
16	8.0 24.0	18	7.0 37.5
20	9.0 33.0	19	7.0 40.0

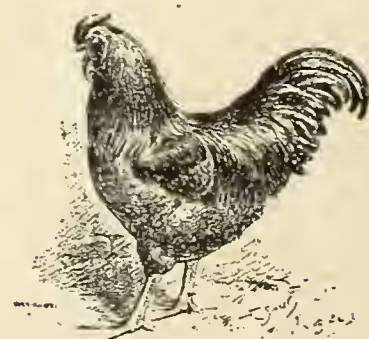
‡ Died August 18.

Summary Showing Results of Experiments.

1. If skim milk be added to the ration fed to young chickens it will increase the consumption of the other food given.

2. The great increase in average gain was coincident with the periods when the greatest amount of skim milk was consumed.

3. Skim milk is especially valuable as a food for young chickens during the hot dry weather, and becomes of less importance as the chicken grows older and the weather becomes cooler.—W. B. ANDERSON, in *Rural World*, England.



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AND

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We have hundreds of R. I. Red Cockerels suitable for crossing, grading or pure breeding, that we will sell singly for \$3 each, or several at \$2 each, if taken in Sept. or Oct. No low priced males will, however, be kept into winter, or sold in the spring. Cash orders booked now for fall delivery. Circular and price list free.

SAMUEL CUSHMAN, Pawtucket, R. I.

Ethics of the Show Room.

Written for FARM-POULTRY.

To one who constantly sweeps the wide field of poultrydom with his glass, many strange things appear. Some of them bring up the question very forcibly: "Is there anything in the nature of fancy fowls which renders them pernicious? Anything which makes association with them dangerous to the morals of the one so associated? If not, how may we explain the sure deterioration along certain lines, in the characters of many who have to do with the sale and the exhibition of fancy stock of this kind?"

I know a woman in whom every grace of culture and of character combine to name the gracious lady to whom all the world bows down. She is just, upright, truthful, scornful of uncharity and deceit of every sort. She is kindly, and has an open heart toward that larger humanity which esteems all others at least as deserving as ourselves. This estimable woman began to rear, to exhibit, to sell fancy fowls. Soon a change passed over her, — a change so subtle that she herself conceived not of it, nor knew that her standard of right had been lowered along just one line. In all else her conception of right and duty toward humanity is the same, but when it comes to pulling disqualifying feathers from a selected show specimen, she can not only do this without a qualm of conscience, but can urge others — novices — to the deed with a superior smile, on the plea that there are none who show but do the same, and it is as fair for one as for another.

It is this specious bit of reasoning, which contains but a half truth and a whole lie, that so distorts the vision of exhibitor and judge, I believe, in a majority of instances. It is true that the practice is as fair for one as for another; it is also too sadly true, I fear, that a majority, at least, of "all the rest" are implicated in such practices; it would always be true of some, so long as human nature is what it is, even in spite of any rules for judging strictly prohibiting feather pulling and all faking, and even without the saving clause, "they all do it, and it is as fair for one as another."

If this saving clause were true as to its first thought, it could never be true as to its second — which means, in effect, that it is really fair for all — unless the exhibitors themselves were the only ones to be considered. They are the "all" included in the defensive statement; but as a matter of fact, the exhibitors are only a very small part of the "all" on whom these questionable acts have a decisive effect. The great buying public, for whom the shows are held for the very purpose of "catching," are indeed caught, and with a hook of deceit. They suppose the birds on exhibition to be what they show to be; the exorbitant prices (from any other point of view) which they often pay for birds are paid only on the ground that these birds are perfectly feathered above others, and that they are fitted to transmit that characteristic. If "they all do it" in truth, then the great buying public is hugely, grossly deceived, and exhibitors are all in effect liars.

So long as we know how far some men tower above all others in moral quality, we shall find it utterly impossible to believe that all exhibitors are guilty of deception. Personally I know one man in the fancy poultry trade, a constant exhibitor, to whom I have sent birds, trusting absolutely to him to fix the prices on them. I trust there are many others of equal probity with him; but I think the danger is that many will deceive themselves by the maxim quoted, that what is fair for one is fair for all, shutting their eyes to the greater "all" outside the company of exhibitors who will have not an instant's difficulty in pronouncing certain acts culpable in the extreme, because they are not blinded to the real character of such acts by self interest.

The ethics of the show room have a bearing in two different directions: — the acts of both judges and exhibitors will be modified by their several attitudes toward show room morals. The exhibitor may hoodwink himself into believing that whatever the judge allows to pass is all right, and without hoodwinking will then believe the judge himself "all right." The judge on his part may hood-

wink himself just as effectively on the old plea that they all do it, into believing that he is all right, even when shutting his eyes to irregularities under rules which "will be rigidly enforced" — according to the premium list.

Even outside the show room, self interest exerts such a powerful influence over men that buyers demand a strict compliance with morality on the part of sellers, when very lax themselves, and are truly amazed and horrified at crookedness on the part of dealers in fancy fowl and eggs, unconscious that they are themselves doing the same thing, in essence.

An instance of this came under my recent observation, in the case of two men who were looking at my stock. They were in no haste to go, and as we chatted, a good many things cropped up. From various words let fall, it appeared that only the strictest probity on the part of dealers in fancy stock would satisfy their sense of justice. Yet I discovered that one of them, through another man employed by a large company doing him "a favor," had the rare "chance" to keep poultry without it costing him a cent for feed. This was because his friend would favor him by taking grain for him from the stores of the company in whose houses the friend was employed. That this was absolute stealing, and more culpable than the giving of part value with which some poultrymen were charged, was not in the least apparent to their moral sense. It is a most curious study, this dulling of the moral sense in spots, by self interest and custom.

It is time we learned that cheating is cheating when we practice it, even as we know it is when practiced by the other fellow; that lying is lying, in our mouths as in those of other men; that lying and cheating are as culpable in the show room as elsewhere; as culpable in judge as in exhibitor; as culpable in buyer as in seller.

The times were young when first the buyers cried "it is naught," and went their way to boast over their bargains. Times are older now, but buyers still follow the same methods of getting bargains, and show room ethics are subject, as are older problems, to the frailties of human nature. As long as men are human there will be knaves, especially where it is easy to be knavish. It is the part of all who would be counted in the other lot to see that we do no knavish deeds on the plea that only thus can we succeed, and that all others are knaves with us, for the purposes of success only.

MYRA V. NORRIS.

Hens That Don't Lay.

Food for Summer.

Some people have complained to me that their hens which are confined in yards do not now lay well. The hens laid well through the spring, but now, although they feed the same ration, they get but few eggs. I have had the same experience with hens, and perhaps I may be able to suggest some methods of feeding and earing for hens which do not have the run of a range where grass and insects are obtained.

First, the ration which gives good results in the early spring is not adapted to the warm weather of mid-summer. The carbonaceous foods that then may be needed, as corn and meat scraps, make the hens too fat to lay well in warm weather, and they are also too heating. If such concentrated foods as cut meat and bone are fed, except in very small quantities, it may cause bowel trouble. When the winter ration is continued through the warm weather, the hens confined in small yards, not getting green food to dilute the ration, and not being induced to exercise, get too fat, and stop laying. This I know to be true, from my own experience. Because the green food was not at hand, and because I was too busy with other work to provide it, the hens went without it, and I obtained fewer eggs.

Now I wish to tell how I have tried with some success to solve the problem of making the hens profitable when confined in small yards. A plot of ground was selected adjoining the poultry yards, for growing clover. This was inclosed with wire netting, so that when I desired I could use the plot for a pasture for the hens. Such a plot should be of sufficient size that the clover can be renewed once in two years by ploughing half

of it, planting it to vegetables one year, and then reseeding. Here is a good place to grow cabbages to supply the hens with green food in the winter. A plan I would suggest, and which I shall try, is to plant one-half of such a plot to cabbages, using the hen manure for a fertilizer, then in July sow crimson clover between the rows, and early the next spring sow the common red clover on the ground. The crimson clover will furnish a green pasture for the hens during the late fall and early winter, and also during the following spring, if it does not winterkill.

If the crimson clover survives the winter, (and I think it usually will in my latitude if sown in July), it can be mown in the spring, and cut with a clover cutter for the hens, or it may be used for a pasture for the hens, whichever plan may prove the best. If the crimson clover is kept down by cutting it, or turning the hens on it, I would expect the red clover which is sown in the spring to make sufficient growth to be used for a pasture later in the summer. If there are several yards of hens they can be alternately turned on the clover pasture, if it joins the yards. Clover is the most economical food for the hens with which to supplement the grain ration. I think when it is supplied that at least one-half the grain can be saved, more eggs will be obtained, and the hens will be healthier. The hens need bulkier food in the summer, and the hens need the clover to dilute the more concentrated food.

A good ration for laying hens must contain nitrogen and phosphate of lime, and these are more cheaply supplied in clover than any other form. This plan which I have described for cheaply supplying the hens with green food when confined in yards, I think is practicable. I have not yet got it in complete operation, but I have for some time turned my hens on a grass plot near my yards every day, and will soon have the clover pasture for them. When I neglect to turn the hens on the grass range for two or three days, I get less eggs. It is also my practice to scatter grain over my yards every few days, and plow it in. The hens are induced to exercise by scratching out the grain, and they also find the worms and other insects in the ground. This animal food is about all the food of the kind they need in summer, and this is certainly the cheapest way to provide it.

Yards should be rectangular in form, so they can be more easily plowed. Then with one horse and a small plow the soil is easily turned. Shade should be provided for the hens, and a good way to do it is to plant trees or vines along the fences, protect them from the hens for a year or two, until they grow above their reach. The hens furnish the fertilizer for them, and when you frequently plow the yards and keep the hens scratching, the cultivation costs nothing. Plums, cherries, or grapes, are desirable for planting in the yards, and will add something to the income of the poultry plant. I have grapes growing along the fences. The main stem is carried to the top of a six foot high wire netting. One foot above this another wire is stretched, and to this the vine is trained. I clip the hens' wings, and they get but few grapes. — W. H. JENKINS, in *Ohio Farmer*.

MARKET REVIEW.

Eggs.—No improvement is noted in the egg situation. Receipts of western have been large, and as nearly all are affected by heat trade is unsatisfactory. The best western are offering at 14¢, and many sell at 13¢-14¢. A few special marks range up to 15 cents, but this kind is scarce. Choice fresh eastern sell at 16¢-17¢. Strictly fine nearby eggs are scarce at 18¢-22¢. The stock of eggs in cold storage was increased 5,000 cases last week, and now amounts to 145,014 cases, against 130,830 cases last year.

Poultry.—The poultry market continues fairly steady, with only fair supply. Northern chickens are lower at 15¢-18¢; broilers, 16¢-20¢; western iced chickens, 14¢-16¢; fowls, 10¢-11¢. Fresh ducks, 15¢-16¢.

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Mrs. GEO. E. MONROE,
Member Black Minorca Club, Dryden, N. Y.

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FARM-POULTRY PRACTICAL EXPERIMENT CLUB.

In this department all published matter pertaining to the Experiment Club and its work will appear. We want every member to feel perfectly free to ask questions and make suggestions. Discussions of topics suggested to members by their own record sheets are especially desired.

Interesting Statistics.

How Much a Brahma Hen Eats and Produces.

One of our Massachusetts members keeps a very complete record of a pen of Light Brahmas, and sends us a monthly report of the amount of food consumed by the pen, the individual egg record of each hen, and the weight of each egg—all recorded daily. The weight of food represents the amount actually consumed. As a record is made of the amount fed, and the amount removed after the fowls have had a sufficient quantity, the amount removed is deducted from the amount fed, giving the actual amount disposed of by the fowls. From the reports covering nine months, October to June inclusive, we have been able to glean some interesting facts. Owing to lack of time we have followed only the work of two hens in detail. The egg records and weight of eggs are the actual records of two hens. The food weights and proportion of each food are the average daily allowance consumed by one hen, and are made from the daily records of the pen.

The mash was fed at night, and contained a variety of ground grains, bulky green stuff, and meat food. This mash is weighed when fed, and therefore the weight is a large part water—(about half). The dry grain and fresh green stuff is also accounted for by weighing. Cut bone or meat when fed, was also weighed. These reports cover months when the fowls were confined in the house, where all green food had to be fed, and also months when they were on grass runs. This has been considered in making the average weight of the ration, and an allowance made to account for all green food consumed, whether indoors or out.

In the 273 days the hen produced 146 eggs, worth about \$3.04 at average market price (25 cents per dozen). These eggs had an actual total weight of 21.25 pounds.

The average amount of food consumed by one hen during the nine months, including green and meat foods, grain, and mash, was a little over 85 pounds.

Approximately this is five ounces of food per day for one hen. Of this three ounces was mash food. One-half to one ounce was dry whole grain. One ounce to one and one-half ounce was either cut bone, meat, or green food (beets, turnips, cabbages, lawn clippings, cut clover, etc.). The bone or meat was used about three times a week, as a rule, and the remainder of the week the green stuff took its place. The mash always contained some meat food, unless the maximum amount of meat or bone was fed that day.

Roughly, it may be stated that the average daily food of one hen was: One and one-half ounces of water in mash, (drinking water is not accounted for, fresh water, grit and shell were always before the birds, and no account taken of the amount consumed). One-half an ounce of moist meat food. One and one-half to two ounces of dry grain; of this three-fourths to one ounce was ground stuff for the mash. One to one and one-half ounces moist green food.

It took four pounds of food to supply the hen while producing one pound of eggs. As a considerable part of the food weight was water, we think a fair estimate of the cost of the food would be one and one-fourth cents a pound. Approximately it took nine cents worth of food to produce one dozen eggs—three-fourths of a cent per egg.

The cost of the food per week for one hen was a trifle less than three cents. The average value per week of eggs received from this hen was about eight cents—(a trifle less). Total value of the eggs received was about \$3.04; cost of food about \$1.07—giving \$1.97 returns in eggs for the nine months as profit over cost of food.

This hen is a yearling Light Brahma, of about two pounds less than standard weight.

It will be seen that in nine months she laid nearly three times her own weight in eggs. As a pullet she made a record of better than two hundred eggs; or, in a year from the time she laid her first egg she had produced more than four times her own (pullet) weight in eggs.

To keep this hen for the remainder of the club year (until October 1st) will cost about 36 cents, making a total cost of entire food of one hen for one year, \$1.43. If she had stopped laying July 1st, and did not lay again for three months, (she is still laying), she would still have a balance of \$1.61 in her favor at the end of her year.

It must be remembered that the above mentioned earnings are for one particular hen. The average earnings per hen for the whole pen are somewhat different. The average number of eggs per hen for the nine months, was nine dozen. Their market value being \$2.25, gives a profit from eggs above food cost of \$1.18 per hen.

The cost of producing the eggs from entire pen, was about twelve cents a dozen, or one cent each. The value of the average weekly production of eggs was less than six cents; the cost of food per hen less than three cents for the week.

About five and one-half pounds (pen average) of food were required to supply the needs of each hen while producing one pound of eggs.

The maximum (average) amount of food consumed by one hen on any one day in the nine months, was eight ounces. The minimum amount of food consumed by one hen on any one day, was three and one-half ounces. Average daily ration consumed by one hen, was five ounces. The fowls were always fed according to appetite, and were well fed.

The poorest layer in the pen produced only 65 eggs in the 273 days,—her product having a value of \$1.36, giving her an earning of only twenty-nine cents above the average cost of the food per hen.

This hen is full standard weight, and nearly two pounds heavier than the record hen of the pen. It is quite probable that she is one of the heaviest feeders in the pen, and consumes more food than her more prolific sisters. Such being the case, she is what dairymen call a "waster." She is of value only for meat; and, as an egg producer, does not pay her keep.

The eggs from this poor layer had an actual weight of 8.5 pounds; her eggs were smaller than those of her more prolific sister. Figuring that she consumed only the average amount of food per hen for the pen, we find that she consumed ten pounds of food for every pound of eggs she produced. Her eggs cost more than one and three-fifths cents per egg. She did not lay her own weight in eggs.

This looks as if the standard weight for Light Brahmas is rather too heavy for good results in eggs. The best layers in this pen are all below standard weight; the poorest layer being full standard weight, (nine and one-half pounds),—the best layer weighing but seven and three-quarters pounds.

The presence of this non-paying hen in a small pen of the fowls, (now six, formerly eight hens), is a good argument in favor of keeping individual records. Such a "waster" is not a desirable hen to breed from—or to keep.

To Members Keeping Individual Hen Records.

All members who are now keeping individual hen egg records will confer a favor on the club if they will make an effort to continue their record keeping (for the hens they are reporting) until the end of the club year. Quite a number of members keeping such records have dropped out during past two months. Those who still persevere in keeping individual records are doing good work, and we hope that they will try to make reports for a full year.

Experiment Club Notes.

The hen whose eggs cost you (for food) from five to twelve cents a dozen, is the profit maker. The hen whose eggs cost you twenty-four cents a dozen is a rank waster, a beefy hen, and fit only for the table. There are many "wasters" in most flocks, and they need to be weeded out to save the profits.

Keeping individual records is the only way to determine which hen does the work.

According to the variety of fowls you keep, and their prolificacy, you can feed a well balanced ration, and produce eggs at a cost per egg for food of less than one-half a cent up to two cents, according to the hen.

Mediterranean varieties require an average ration of about three and one-half ounces of food per day per fowl—about eighty pounds of food per fowl per year. Cost of food for one hen for the year, about \$1.

American varieties require an average ration of about four and two-fifths ounces of food per day per fowl—a trifle over ninety-four pounds of food, or a cost of about \$1.18 per fowl per year.

Asiatic varieties require an average ration of about five ounces of food per day per fowl—a trifle over one hundred and fourteen pounds of food, or a cost of \$1.43 per fowl per year.

The best average egg yield for any pen of Mediterraneans (a pen of Leghorns) reported to the club last year, was 175 eggs per hen. Rating the eggs at nine to the pound, this is about 19.5 pounds of eggs per hen per year—about 4.1 pounds of food being required to produce one pound of eggs. Market value of carcass, in this class, is small.

The best average egg yield for any pen of Americans (a pen of B. P. Rocks) reported to the club last year, was 180 eggs per hen. Rating these eggs at eight to the pound, this is about 22.5 pounds of eggs per hen per year—about 4.2 pounds of food consumed while producing one pound of eggs. Value of carcass as market poultry, the best.

The best average egg yield for any pen of Asiatics (a pen of Brahmas) reported to the club last year, was 100.6 eggs per hen. Rating the eggs at seven to the pound, this is about 14.4 pounds of eggs per hen per year—nearly 8 pounds of food consumed while producing one pound of eggs. Market value of carcass, good. (In another column we give a nine months report of a pen of Brahmas in this year's club, which makes a better showing).

So far as we may judge from the club reports, the American varieties are the equals of the Mediterraneans as egg producers. For table poultry and good sizable meaty eggs, the American take first rank.

In the matter of egg production there is not so much difference between the several varieties as has been generally supposed. In all varieties which can lay any claim to utility value, even the despised mongrels, 200 eggs in a year hens have been produced. Where eggs alone are the consideration, the variety which pleases the man and which suits him best, is the one he will have the best results from. If marketable qualities of carcass have to be considered, he must choose a variety that produces six pounds (or heavier) hens—and in some sections of the country the skin and legs must be yellow.

Using above figures, and allowing a market value of two cents each for the eggs, it can be stated that the earnings of the three classes, as accounted for by the representative pens, above the cost of their food, was as follows: Profit per year per hen, Mediterraneans, \$2.50; Americans, \$2.42; Asiatics, \$3.58. The Asiatics did not have a good representation in the club reports. Had this class been represented by a pen having an average of 144 eggs per hen, its profits would figure \$1.57. This figure, we think, is a more fair estimate.

The hens quoted in the preceding paragraph are representative pens. For the general run of fowls kept "any old way," 100 eggs in a year per hen is setting the average a little high. It costs fully 75 cents a year, per fowl, to feed such hens; and the eggs sell from ten to fifteen cents the dozen. Their owners will tell you that "hens don't pay;" but it isn't true—you can figure a profit even for these hens.

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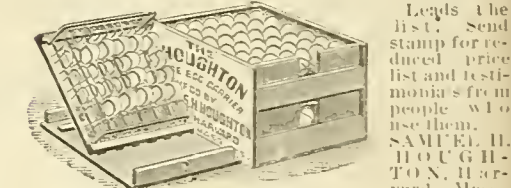
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Join the club now, and begin record keeping. Find out what your fowls are doing, and if you are making a fair per cent of profit. The club begins a new year October first. Get some of the new blanks, and keep a record.

Try to begin with the rest. October 1st is the date our year begins. Keep a record of a pen of hens and a pen of pullets if you can. Be sure to send in your name *now*, so you will receive your blanks on time.

End of the Summer Scratchings.

There is still time to build that poultry house, if you will only get right down to business. There will be enough hot weather to dry it out well, if you keep the doors and windows wide open every pleasant and breezy day until cold weather comes. Dig up the earth floor frequently, so that it can dry well.

Don't neglect shade for your growing pullets. There is still enough hot sun to make them very uncomfortable unless they have shelter to run to. A piece of Neponset paper two and a half yards long, with a strip of furring tacked to either end, can be made into an ideal shelter tent, if stretched over a horizontal bar set with two uprights, and the tent made fast with cords running from the furring end pieces to pegs in the ground. These shelter tents make fine shade in the absence of bushes and shrubbery.

If you have not already done so, you ought to get your poultry house in shape for winter. The top of that well worn and be-dropped earth floor, to the depth of six inches, ought to come up, and be put on the garden for fertilizer. Fill its place with well aired fresh earth.

The lice need a little attention again. Do a thorough job of dusting the fowls, each of them once a week, for at least three dustings. Any good insect powder will do. Tobacco dust and fine coal ashes or well slaked lime, mixed, make a good cheap dusting powder; it is effective, too. The roosts and droppings boards need a bath of kerosene or some good liquid lice killer. Hot whitewash for the nest boxes and walls of the house. Slop it on with a broom everywhere.

Kill the flocks closely. Don't keep over any scrubs or overfat hens. You want only the profit makers and good breeding birds.

This is the best time in the year to buy breeding stock. The price is low, for breeders are disposing of all the adults that they do not wish to winter, and have a large flock of surplus youngsters. Don't expect "something for nothing." Good birds are offered by FARM-POULTRY advertisers at low prices, quality considered. It will pay you to consult the advertising columns carefully from now on, if you intend to buy stock.

If you buy your breeders now they will save many disappointments. They will have time to get accustomed to their new home before severe weather, and you will be able to have them in good breeding condition.

Waiting to buy stock until the breeding season is already on, results in much bitter disappointment. The birds in strange quarters, among strangers, and getting different care, suffer homesickness, and get out of condition. You cannot expect fertile eggs or good chicks from breeders that are homesick or otherwise out of condition.

In selecting birds to keep over winter, remember that sound strong constitution and health is of the greatest importance. All other things should be subordinate to the importance of health. Unless you save healthy fowls for breeders, and keep them healthy, it will be useless to try to get healthy chickens from the birds in the spring.

Do not deceive yourself by thinking you can buy a two dollar bird for fifty cents. The man who tries to get "something for nothing" in that fashion, usually finds himself coming out at the small end of the horn.

Get a good supply of earth under cover for winter use. A plentiful supply of dry earth in winter is a great convenience for poultry keepers.

A few window boxes, in which to sow seed for green food for the early chickens, will be found useful. If you have plenty of earth under cover you can put off making the boxes until dull days and long evenings make indoor work attractive.

The old fowls are ragged in moult, and should be provided with shelter from rough winds. Do not forget that the necessity of growing new plumage calls for animal food and liberal feeding. It does not pay to starve or overfeed any fowl at any time. Moulting birds are no exception to this rule. Feed according to appetite, but make the food tempting. Green food they should have freely, and the fresher it is the better. It will be relished better, and do more good if you let them gather it for themselves on good green pasture.

Do not condemn the breeder who sold you the eggs until the chicks have moulted their chicken feathers. Many a chicken looks like a cull to the novice until it puts on the plumage which denotes maturity.

The majority of the chicks this season that we have seen have turned out well. The promise is for better birds than ever before at the coming fall and winter shows. This is as it should be, and we all ought to try to have next season's birds better still.

DR. WOODS.
Poultry On the Farm.

Three years ago I became discouraged in trying to raise poultry to sell by the pound. I sold off forty-five hens, and they brought me but \$9.90. I concluded that there was no profit in working all summer with chickens and then giving them away. We concluded to raise thoroughbred chickens, and sell them at so much apiece, or not sell any. We kept all the hens that we raised from the thoroughbred eggs which we bought, and a part of the cockerels the first year. We purchased a roll of wire chicken netting, made a chicken yard, and penned the thoroughbred hens with one cockerel, and set the eggs under our mixed hens. We raised enough the second year to warrant us in selling off our mixed stock. We found a ready sale for all our surplus thoroughbreds. We then bought two fine cockerels, and mated them with our flock. The result was that we could not raise half chickens enough to supply the demand, and found a ready sale for all we could raise at seventy-five cents each. Is not that encouraging compared with the price we received for the mixed ones? We have two neighbors who are doing fully as well with a different breed. Any farmer who will have the courage to make a start in this business will never regret it. If your neighbors laugh at you for paying a large price for your eggs at the beginning, and ask you to whom you expect to sell your chickens at such prices as you expect to get, do not be discouraged. That was the way our neighbors treated us, and they were almost the first to buy. There is hardly anything that will attract attention on a farm quicker than a nice flock of thoroughbreds. Now we are not fanciers, remember, but have simply substituted good for poor stock, and are making money in an industry which before was profitless.—Mrs. C. F. LIPSEY, in *Agricultural Epitomist*.

A curiously misformed duck was recently hatched at the poultry farm of Capt. Thomas Van Horn, which is managed by his son, Egbert. The duck has four legs and two bills, the extra bill growing out on its back. The queer duck excites much curiosity, and a large part of Egbert's time is occupied in watching it.—Pearl River, N. Y., *Searchlight*.

As to Cold Storage.

Cold storage is in many ways an advantage to both the producer and consumer. It relieves the market of its surplus at one season, and carries it along until the time when less is coming in, and with this stored surplus it is able to supply the consumer at a time when he could not obtain excepting at almost prohibitory prices, or perhaps not at all when the season of production was past. It in one sense overcomes the laws of supply and demand, because it creates a new demand in time of abundance, and has a supply in hand for the time of scarcity; but it is claiming too much to assert that the refrigerator keeps all things in their natural condition until long out of season. It arrests decay, but it cannot hold all the flavors intact; and while it keeps some things much better than others, it is to a certain extent a failure in the products of the poultry yard.

We have eaten eggs from the refrigerator, cooked almost as soon as taken out, and while they were eatable, and perhaps as nutritious as newly laid eggs, they had not the same taste. It is the same with poultry. Though it may be and is kept for months in a condition which prevents it from becoming offensive to smell or taste, it certainly lacks in the flavor which we have learned to associate with that which has been kept just long enough without freezing, and not as long as Professor Wiley thinks it should be kept to be most digestible. We prefer ours with less ripening, even if our digestive organs have a little more heavy task.

This is not without some influence upon the demand for eggs and poultry. Such as comes out of the cold storage after remaining there long, does not help to give the consumer a desire for more. It is too much like the proverbial crow which the man said he could eat, but "be hanged if he hankered after it."

That we are not alone in our opinion of refrigerated poultry and eggs, is shown by the difference in price in our market, when both fresh and refrigerated stock are plenty, and it will be many years, we think, before the poultry keeper who makes his plans to have chickens and eggs for sale in the winter months, instead of at the season when they are most plenty in the market, will not find himself well repaid for whatever extra care and expense may be incurred in their production.

Of course those who have hatched out their chickens early will be better prepared to have eggs next winter than those who hatch them in June, and yet by proper care and feeding June hatched chickens of almost any breed, even the Brahmas, can be so pushed along as to grow rapidly and mature early enough to lay in December. They need to be kept growing every day from the egg, to be healthy, and not troubled by lice, and their food should be stimulating, rather than fattening.

We do not mean that they should have the professed egg foods and stimulants, but plenty of meat scraps, good grain, and abundant exercise, and with this there is little danger of their becoming too fat; and if put in comfortably warm houses before cold nights come, and fed regularly, most of them should be laying when six months old. Fall hatched chickens, too, can be grown in suitable houses, and brought to a roasting size in the spring much easier than the winter hatched broods



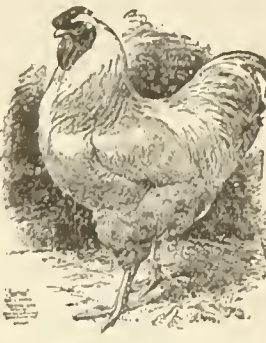
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can be made into broilers. One well fattened fall chicken weighing four or five pounds will sell in April or in May for about as much as two broilers, and they are in good demand. They may have consumed a little more food, but there is less expense in other ways, and they are quite as easily grown, as both need to be in warm quarters to keep them growing steadily.—*Ploughman*.

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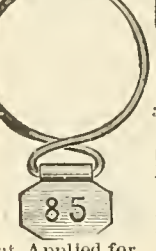
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EDITORIAL.

The Man Behind the Hen.

We heard not a little said during our late war with Spain, about "the man behind the gun,"—that it was the man, rather than the gun, that achieved such gratifying successes. It is precisely so in poultry raising; the man, rather than the hen, "the man behind the hen," makes the success or muddles the prospect of it.

This was forcibly impressed upon us during a recent visit to Maine, where we found two young men making an excellent success with broiler chickens, although they are four miles from the steamboat landing, and a long, long way from depots of supplies and markets. With a couple of incubators and a fifty foot long hot water pipe brooder house, they have raised about twelve hundred broiler chicks this year, and a finer lot than those we saw being dressed for market it would be hard to find.

The two young men are working to get money to complete their education, one of them being in the Harvard medical, and the other the law school; and they will clear enough on the twelve hundred chickens to be a substantial help to them in the coming college year's expenses. After the pressure of broiler work is over they plan to build house room for about a hundred good pullets, and they "expect to clean up a few dollars" from the eggs they get this fall and winter.

This is a typical example of New England "thrift," and is particularly interesting only because the young men turned to poultry raising as the most promising branch of farm work, the opening through which they could reach sure and immediate returns. The lack of a well equipped poultry plant didn't discourage them; not having good stock didn't "phase" them. They went to work with the material within reach, and because they are the right "men behind the hens," they are winning success, and FARM-POULTRY congratulates them.

Appreciation of Good Stock.

A correspondent in Ohio writes: "I cannot get anything much around here in good stock, hardly anyone caring about thoroughbreds, taking into account the large number keeping a few hens; but many are of the sort that will be able to see the advantage of thoroughbreds with the aid of judicious explaining. I hope to make my White Wyandottes profitable, in addition to the pleasure I can derive from keeping them, in addition to the eggs and poultry for table, which certainly are both a pleasure and delight."

That admirably expresses the missionary spirit in a few words, and illustrates the "little heaven" which is spreading and spreading all over this broad land; yes, all over the world. No one can have better opportunity to see this than the editor of a poultry paper having so wide a circulation as FARM-POULTRY, and the evidence of the steadily growing appreciation of good poultry is most gratifying.

A man becomes interested in good stock, and by "judicious explaining" interests his neighbors and friends. That is both pleasurable and profitable—profitable because the neighbors and friends come to want to buy males, or eggs for hatching, etc. Then there is the better results coming from the better care given the better stock, and a whole community is benefited. There is evidence on every hand of this steadily growing appreciation of good stock, and it is certainly very gratifying.

Fanny Field's Five Hundred Dollars.

We have had of late a number of requests for further contributions from Fanny Field, and as she hasn't favored us with any of her bright articles for some time, we wrote and asked her "why," and forwarded one letter which asked where the story of her making \$500 in one year from one hundred hens could be found, to which she writes the following characteristic reply. The letter is too good to keep, so we share it with our readers:

—, Mass., July 28th, 1899.

Dear Bro. Hunter:—Yours of the 24th at hand. Ever since your "impassioned appeal" of some weeks (or was it months) ago, I have been trying to find time to "write something for FARM-POULTRY," (have no end of good things to write about), but hens, invalids, farming, etc., have kept me busy about eighteen hours a day, and writing hen articles has been utterly out of the race. Now I am up to my eyes in editorial work on an annual publication, and as I work for nothing, board myself, find my own kerosene and postage, and am obliged to ransack the United States, Canada, and part of China for material, I am of course enjoying the work so well that I could not think of slighting it one bit—not even to tell my "mourning constituents" how to make "\$500 a year from one hundred hens." (Good Lord!) they have "that story" somewhat mixed (like Otis' reports), and just as soon as I can steal the time I'll give F.-P. the "only authentic," uncensored account of that venture. It is barely possible that I may get it in shape for you by next Tuesday, Aug. 1st, but won't promise—so of course you will expect it then. Yours cheerfully,

FANNY FIELD.

Poor Hatches in England.

We have spoken once or twice of the very generally poor hatches, and that it would most probably have the effect of making prices high for stock. It is reasonable to suppose that with little stock to sell buyers would be asked a good price for what was for sale.

A letter just received from a friend in England tells us the same condition obtains over there. He writes:—"The hatching this season has been dreadful over here, far worse than many people care to tell, and sometimes, perhaps, it is a consolation that other people have been just as bad. We have not nearly as many birds as we should like, and it has put us back in our work most discouragingly."

There is a melancholy satisfaction in knowing that others are in the same unfortunate position as ourselves, and yet the discouragement to many is almost a disaster. We met a young man last week who was consoling himself with the thought that it was just as well his hatches had been poor, as he hadn't

the money to build houses to put the birds in if he had them. We told him that if he had raised two hundred more pullets he could have sold half of them for money enough to build houses to put the other half in, and thus have been so much ahead. Pullets are pullets this year, and will bring good prices.

Clubbing Subscriptions.

Some of our readers apparently think that we send all the papers for which we make club rates, from this office. One letter asks:

"Do you send FARM-POULTRY and the Feather at the same time? I have always received FARM-POULTRY on time, but the Feather is always four or five days later." Another asks why we don't send his Poultry Keeper on time. "I get FARM-POULTRY promptly, but the Poultry Keeper is sometimes a week late in coming."

Every clubbing subscription is sent direct to the office of the paper clubbed with, and is mailed from that office, not from F.-P. office. For example, when we receive an order for FARM-POULTRY and the Feather, the F.-P. subscription is entered on our subscription books, and the order for the Feather is sent to the office in Washington, and entered on its subscription books, and the two papers are mailed each from its own office.

It is so with all club subscriptions. Each paper receives its share of the money, and the subscriber's name and address; thereafter the subscriber is a regular subscriber to each paper. If you do not receive a number of another paper to which you have subscribed through one of our clubbing offers, write to the office of the paper, not to us. Your subscription has been sent to that paper, and you have become one of their regular subscribers.

"Something for Nothing."

"Something for nothing, is what a good many buyers expect, and they get mad because I am unwilling to give away birds which I advertise for sale," said a well known poultryman to me recently. Then handing me the following letter, he said: "Read that; it will amuse you."

"Dear Sir:—You will remember that I had fifty eggs of you last spring, and that the incubator failed. You sent fifty more eggs, and I did not get many chicks. I also had fifty eggs from —, but got only three chicks, culls. Fifty eggs from another breeder hatched twenty chicks, and all died but three."

"Now I am not going to buy any more eggs, and I'm not going to monkey any more with incubators. I want ten or twelve *brown egg White Wyandotte* pullets three months old; good average birds. *I don't want culls.* I don't want show birds, but I expect good white birds with yellow legs."

"If you will sell me these *cheap* I will take them, otherwise not. I have done nothing all summer but blow in money trying to get chicks, and what few I did get the cats and diarrhoea got away with, and I am not a Vanderbilt."

"Birds three months old you should let me have for twenty-five or thirty cents each."

Yours, —."

Such a letter from a schoolboy would not be surprising, but it happens to come from a man who knows better. The birds which he wants will run from two and a half to three and a half pounds each, yet he tells the breeder he should sell them for *twenty-five or thirty cents* each.

This poultryman has a good market for all his culls, and at the time the letter was received was able to get at the market from fifty to seventy-five cents each for all the three months old chicks he could spare—and for market it did not make any difference whether they were culls or not; yet this would-be buyer asks him to select good standard birds, bred for brown eggs, and sell them for less than half the market price for culls.

The fact that the poultryman had already been indulgent by duplicating the egg order when he was in no way responsible for the poor luck of the buyer, gave the impression that here was an easy man to work for stock. The writer of the letter did not expect to get the pullets for twenty-five or thirty cents each, but he did think that saying he should have them for such a price would

induce the breeder to sell good birds for much less than they are worth.

The — from whom eggs were purchased, is one of the most reputable men in the business. He was undoubtedly asked and paid for incubator eggs, and supplied them. From the fact that the buyer was nursed to an incubator, it is evident that the eggs were not at fault. That the chicks secured were culls, may be true, but that in no way reflects on the breeder. It is nothing strange that a hatch of only three chicks from fifty incubator eggs should not produce show birds. Here again is evidence of an attempt on the part of the buyer to get something for nothing. He bought and paid for incubator eggs, but he confidently expected the breeder to send him selected eggs, worth as much per sitting as the incubator eggs were per fifty.

There are always two sides to every question, and there is no doubt that oftentimes buyers are victimized by unscrupulous breeders; but when they are, we are not long in hearing from it. It is also true that the breeder is often the victim of unscrupulous buyers who attempt to get something for nothing.

There are honest and dishonest men in every business, and the poultry business is no exception to this rule; but it is safe to say that the average poultryman possesses the average honesty of the average man.

Good goods are always worth a fair price. There is no reason why, because a man sells poultry instead of dry goods, he should sell his stock below cost.

It is the duty of the buyer to deal honestly with the seller, just as much as it is the duty of the seller to deal honestly with the buyer. When he wishes a good article he must expect to pay a fair price for it. It is poor policy for any one to be continually scrambling after "something for nothing," and in the end those who do this thing only cheat themselves.

DR. WOODS.

A Few Compliments.

Helped Him Make Money.

Messrs. I. S. Johnson & Co.,—Gentlemen:—I was extremely pleased to notice your "ad" in *Youth's Companion*. I had lost your address in disturbance caused by change of residence. When at a former place, in the Adirondacks, a kind neighbor pitying my futile attempts to make poultry pay, loaned me the first three years of your paper, and I can say in all sincerity that they were a revelation to me, and literally coined money for my pocket.

I had poultry, but that's all I could say. I was out of pocket by the strict accounts I kept, and was about to give up in despair when, by taking the common sense advice of FARM-POULTRY, I reduced cost of feeding an average flock of twenty-five hens to ten cents a week, got trustees of church to build a sanitary hen house, trebled egg yield, and raised such good fowls that the sale of cockerels and pullets to neighbors was no small item each season. I could say other good things about your paper. The statements made may seem exaggerated, but I can substantiate them if desired, and I should be happy to write for you my experience if you ever desire it.

If your paper is as good now as the first volumes, I want it, as I intend to make a study of poultry raising as thorough as possible.

Yours very sincerely,

Corinth, N. Y. Rev. EDW. J. ABBOTT.

[Thank you. We are trying to make a better paper now than even the first three volumes. Will be much pleased to have you write us your experience.—Ed.]

Cream of Them All.

After a year's trial of the best three poultry papers I could find, I have gone back to one, FARM-POULTRY, as it contains the cream of them all, besides Experiment Club reports, which alone are worth the subscription to any one keeping poultry as an object lesson.

Brimerton, Wash.

N. E. R.

It Helps Him.

I feel it my duty to say something in favor of your paper. I am raising poultry, and have gained more information from FARM-POULTRY than any other paper I ever saw. I can't see how farmers can get along without it, and I wish you great success.

Lanesboro, Minn.

H. R. A.

ANSWERS TO CORRESPONDENTS.

Correspondents who enclose stamps for reply receive immediate answers by mail. When no stamps are enclosed questions which are of general interest and have not recently appeared here are printed with answers in this department. Several correspondents sometimes write at about the same time to ask the same question. Of course only one inquiry is printed. Look for the answer to your question, not for your initials and residence.

Questions Briefly Answered.

[Any of the numbers of FARM-POULTRY referred to below, will be supplied at the rate of five cents each].

FANNY FIELD'S \$500 A YEAR.—(W. E. C., Franklin, Mass.): The story of Fanny Field making \$500 in one year from one hundred hens, isn't to be had in book form, so far as we know; think it was printed in a western agricultural paper. That was done when she lived in the west. We will try to get the story, and reprint it in F-P.

SHOOT THE WEASEL.—(W. H. C., Jersey City, N. J.): The animal was most probably a weasel, and we know of no way for you to catch him but shooting; they are extremely shy of traps.

SICK CHICKS.—(G. A. C., Grafton, N. H.): That severe storm which drenched and chilled all your chicks, was the cause of all your trouble with them. Probably only the strongest will pull through, even with the best treatment. You will not gain much by trying to doctor them. Give them the best care you can, and let nature do the rest. A simple tonic may help matters some. Try putting a teaspoonful of tincture of cinchona (red) in each pint or quart dish of drinking water, according to age of the chicks. This is a case where a little of Sheridan's Condition Powder in the mash daily will help matters; it is an excellent thing to tone up chicks or fowls.

ROUP.—(A. B. W., Lynn, Mass.): Your birds have roup, there is no doubt about it. If you keep them, and try to doctor them, you will have trouble always. Better kill them at once, and burn up every scrap of them, blood and all. Fumigate the house, and disinfect it thoroughly before you attempt to keep other fowls there. Be sure you disinfect the floor thoroughly. Better sprinkle it with sulpho-naphthol and water first, and remove all the old earth to a depth of six inches. Then give the floor another sprinkling with disinfectant, and put in six inches on a level of new fresh earth or gravel.

HEAVY COCK.—(W. T. H., Saugus, Mass.): A male bird that is too heavy for the hens is a nuisance. Better get rid of him, and get a less heavy cock. That heavy bird is the exciting cause of most of the trouble with the egg organs of your hens.

FARM PAPER.—(T. A. C., Detroit, Mich.): You will find the *Ohio Farmer*, Cleveland, Ohio, and the *Farm, Field and Fireside*, Chicago, Ill., good farm papers for your section.

TWO STORY HEN HOUSE.—(L. H. P., Woodstock, Vt.): Don't build a two story hen house; you will regret it if you do. The first story will be damp and close, and the second story will be cold.

AUTOMATIC FEEDING.—(F. E. C., Swampscott, Mass.): We don't know of a device to feed fowls grain at regular intervals, automatically. There have been a number of such things attempted at different times, but we doubt their ever being a success from a business point of view.

Brown Leghorn Questions.

Mr. Editor:—How many different strains of Brown Leghorns are there, and what particular strain is considered the best for egg purposes, and which for exhibition purposes?

Is a cock allowed more than five points to his comb—or does more than this number disqualify him? J. J. H.

Galveston, Texas.

There are as many different strains almost as there are breeders of Brown Leghorns; each breeder having his own individual strain. All are good for egg purposes, but we do not know of any one strain that has been bred especially to that point. As color points, stripe in hackle, saddle, etc., are extremely difficult to breed up and maintain,

the attention of breeders has been absorbed in that direction, to the overlooking of the less important quality of egg production.

Which are considered the best for exhibition purposes, wouldn't be easy to decide. Each breeder thinks his the best—and the contests in the show room give one breeder the lead this month, and another the lead next month or year, and so it goes.

A cock should have five points to his comb, but more or less than five points doesn't disqualify—only causes a cut or discount in proportion. If more or less than five points in comb disqualified, nine-tenths of the birds raised would be disqualified; perfect combs are very rare indeed, and many birds have to be used that have four or six points in comb, etc.

Catarrhal Trouble?

Mr. Editor:—Like many of your subscribers, I would like to know what ails my poultry. They have a "click" as if something had lodged in the roof of the mouth, and they were trying to get rid of it. It is most troublesome at feeding time. It seems very prevalent here.

Last fall I had thirty affected. I have killed them at various stages, but find nothing wrong with them. A lecturer here before the farmers' institute was unable to say what the trouble was. I wrote to the Provincial experiment farm. They told me to kill them all. I did not like to do that, and so penned them all by themselves. I never had better layers. The thirty averaged about twenty eggs per day, most of the winter. I felt pleased that I had not killed them. Tried various remedies, but with no apparent effect. They do not seem sick.

Now the young stock are getting the same "click," and I am worried for fear it may get to be something worse. They never appear sick, eat well, and are as spry as larks. Can you suggest a cause and a cure? E. P.

Grantham, B. C.

We think that it is a mild catarrhal trouble. The "click" is caused by the effort of the bird to dislodge a bit of mucus, or a morsel of food which has lodged in the throat. Fowls that have no catarrhal trouble often make a "click" when eating, owing to something starting to "go down the wrong way." With such a wholesale lot of fowls affected as you have, there is probably catarrh which aggravates and increases the tendency to "click." We should not breed from birds that were badly afflicted, even though apparently well otherwise. Try putting two grains of tartar emetic in each pint of drinking water. Please report results.

About Poultry Houses.

Mr. Editor:—I am planning to build a hen house this fall, and had about made up my mind to adopt the scratching shed plan. In a recent number you illustrated the scratching pen idea, which seems to me to possess superior advantages. So far as I can see, it is not open to any of the disadvantages of the scratching shed house. Will you please express your opinion as to which is the better house? I think your advice would benefit many who at this season are about building to accommodate their growing flocks.

West Haven, Conn.

C. H. T.

Personally we would not advise you to build on the "open front" scratching shed plan. For localities where the winters are as cold and bleak as they are here in New England, it is not very satisfactory. All the houses we have seen that were built on the "open front" scratching shed plan were very cold houses. On a visit to the R. I. experiment station, last winter, we noticed that the fowls in the scratching shed houses nearly all had their combs frosted; while those occupying houses similar to the scratching room plan were untouched by frost. The birds in the close built houses were apparently in much better condition than those in the "open front" scratching shed houses. We at first were inclined strongly in favor of the scratching shed house, but after experience with it at our former home, and after many talks with practical men who have used the "open front" scratching shed house, we were convinced that it was not all it should be. It was personal experience combined with the experience of others, which led us to have the plans of the scratching room house drawn for FARM-POULTRY, to offer to its readers a better poultry house.

Some time ago Mr. John H. Robinson promulgated "the heresy" that the "open front" scratching shed plan of housing is, for a cold climate, fundamentally wrong, in that the temperature of the house cannot be kept as nearly uniform in changeable weather as the temperature of the close house."

At that time we were not fully in accord with the "heresy" of Mr. Robinson, but our own experience and careful observation of the facts has led us to believe that Mr. R.'s statement was not "heresy," but "gospel."

It is difficult to maintain an even temperature in the "open front" house. Shutting down the curtains does not keep out the cold, and it does not wholly break the wind on stormy days. We have never yet seen a house built on these plans where the swinging curtains fitted sufficiently well to keep snow and cold drafts out of the shed.

The splitting of the house into two rooms, and so practically lessening the amount of floor space per fowl, is in itself a disadvantage. Of course, having two rooms does not really lessen the floor area, but it amounts to the same thing, as the fowls will be found either all in the shed or all in the bedroom, so that they really spend the most of their time in half of the house, and practically have less floor space than if the house floor was all in one room.

The scratching room house is practically a close house, which can be readily converted into a shed if desired. We have one fault to find with the plans as published. There is one window too many; we think the fixed window which comes on the stud would be better if left out. The scratching room house possesses all the advantages of "a living room and a sleeping room" house. It has two rooms, but they are so disposed that the floor space is not broken, and the fowls enjoy the full floor area, with no partition to interfere. The scratching room house possesses all the advantages possible in an "open front" house, with none of the disadvantages. The windows when closed make it a closed house. The glass windows, unlike cloth screens, do not admit cold wind and sifted snow. There are no awkward swinging shutters that "won't fit when you want them to." The windows are made to slide easily in "ways," and fit as snugly as the windows in any close house. In a long house you have only one room to pass through, instead of having to go through a shed and a roosting room. We do not claim that the scratching room house is perfect, but we do think that it possesses many practical advantages over other houses, especially over the "open front" scratching shed house.

Each builder will build his house to suit his own notions; but we think that he will find the idea suggested in the scratching room house, one that he will do well to follow.

DR. WOODS.

In a Hot Climate.

Mr. Editor:—I have for some time contemplated going into the poultry business, and have pretty well decided all points to my satisfaction, excepting as to climate conditions. Do you think that our summer weather here is too hot for the successful rearing of chickens and Pekin ducks?

Garnett, S. C.

J. S. B.

There is nothing in the nature of things to prevent your successfully raising chickens and ducks in your climate. The important thing would be to provide abundant shade in summer, and green food, also vegetable food, in abundance. The food ration in summer should be largely green and vegetable food.

The great difficulty in your location is distance from the great markets. If you are going into commercial poultry raising. That distance means a great expense for freights, and for ice in summer shipping; the latter being an absolute necessity if you would have your stuff arrive in eatable condition. Wouldn't you do better to make eggs for market your chief reliance?

Cats vs. Chickens.

Mr. Editor:—I have a pet cat that brought in a chicken she had killed. I had just read in July 1st issue, of a man who tied a chick about the neck of his pet dog to cure it of killing chicks, and so I tied the chicken to the cat's neck. She ate what she could reach, and then lay down to let her kittens do the rest. You ought to have published that story under "Fowl Hits," if it was a joke. The cat isn't cured.

Long Island, N. Y.

That was a dog cure, and not a cat cure, although we confess we haven't much faith in that kind of a cure. We introduce our cats to the mother hens before the cats get

their first taste of chicken. The hen picks and so maltreats the cats (we help the hen if necessary), that the result is that cat can't look a chicken in the face. When once a cat or dog gets a taste of fresh killed chicken, and gets in the habit of killing them, we do not believe that they can be cured, and live. The only cure is to kill the cat or dog, or keep the chickens out of reach. We use a shot gun and a box trap baited with catnip to cure feline chicken thieves. It is a sure cure when you kill the cat—and any cat that will kill chicks deserves death.

A Question of Heredity.

Mr. Editor:—Will chicks raised from late matured stock inherit that quality from their parents; provided the chicks are hatched early in the spring? J. W. H.

Omaha, Neb.

If you mean that the stock was late hatched, that does not affect the inheritance of the chick. As a rule late hatched birds and very early hatched birds have a tendency to early maturity. Fowls which matured early themselves will beget a larger percentage of early maturing chicks (no matter when hatched), than fowls that were slow to mature. Besides hereditary tendencies, food, care, climate and conditions under which the chicks are reared, all have their influence on the time required to reach maturity.

An Unsolicited Testimonial.

Wellesley Hills, Mass., July 26, 1899.

D. J. Lambert, Apponaug, R. I.—Dear Sir:—I owe part of my success with poultry to your "Death to Lice." I find it pays in solid cash to use a good dusting powder throughout the year.

My Buff Wyandottes that made such an egg record last winter were brought up on Death to Lice. Without it they would not have laid twelve dozen eggs each within one year from the egg. They were dusted in anticipation of hatching, and have received the powder at regular intervals to the present time.

In my work along the line of poultry diseases, I get letters asking what to use for lice. I always answer: "Use a good insect powder." I depend on Lambert's Death to Lice.

Truly, N. W. SANBORN, M. D.

DEATH TO LICE REMEDIES.



WHEN

Your little chickens don't grow, look dull and sleepy, examine the top of their heads for lice. When you want to fix them nicely, quickly and well, use Lambert's Death to Lice Ointment. It is also good for head lice on children, or scaly shanks on fowls; 10 and 25c. postpaid.

WHEN

Your hen houses become infested, look under and around the roosts and droppings boards for mites or spider lice. These little blood suckers will crawl upon their victims at night, and extract their best blood, no matter whether they are common scrubs or a \$100 thoroughbred. Death to Lice Special, dissolved in kerosene, will eradicate them in good shape. Sample by mail, 10c.; one pound, 40c., postpaid.

WHEN

You only think that your hens are not lousy, pick one out and look closely among their fluffy feathers around the thighs and vent. Lambert's Death to Lice Powder is the pioneer remedy for dusting fowls. It cleans as fast as you put it on. No waiting. A minute and a handful does the business; and the beauty of it is, it does not stain or injure the finest plumage. Sample 10c. by mail; 15 oz., 25c.; 48 oz., 50c.; 160 oz., \$1. f. o. b. nearest agency.

WHEN

You are fixing to exhibit your birds at a fair or show, don't let pily's skin have them lousy. They will not look half as well so affected as they would clean and comfortable. If you happen to forget this until they are in the show pens, don't be afraid to put Lambert's on them. They will look better, smell better, and win a better place than they would if lousy.

WHEN

You have read this announcement, write me a postal card, and I will mail you a Pocket Book Pointer for Practical Poultry Keepers, one of the biggest little books you ever saw on the give-away counter. It will tell you something about poultry keeping that you are anxious to know.

WHEN

You want Death to Lice quick, ask your dealer for it. If he does not keep it, send me his address with your order for a sample, and I will endeavor to induce him to put it in stock. For samples and "Pointers" always address

D. J. LAMBERT,

Box 800,

Apponaug, R. I.

Dark Legs in Plymouth Rocks.

Mr. Editor:—I wish you would kindly answer through the columns of your paper a question in regard to my White P. Rocks. I have bred them for three years; my cockerel has been from a different hen each year. This year many of my chicks came out with dark or pink legs, mostly among the pullets; the cockerels have yellow legs, and the pullets dark ones. What causes it?

I have a friend who breeds Barred P. Rocks from pure bred stock, and his chicks are the same as mine. They are supposed to be thoroughbred stock, and he keeps but the one kind. Why should the pullets have dark legs, and the cockerels yellow? Their beaks are yellow, and they are all right but their legs.

Dodgeville, —.

B. H. G.

It is "in the blood." If you will read the history of the Plymouth Rocks, published in September 1st, 1895, FARM-POULTRY, you will see that it is a made (or composite) variety, the blood of several varieties being mixed together,—the Black Java being one of those varieties. The Black Java has black legs, hence the tendency to black or dark legs in the Plymouth Rocks; of course, the Whites being sports from the Barred, we may speak of them as one family.

Experienced breeders do not borrow trouble about the dark legs in the chicks if the undercolor of the shanks is yellow, because the color comes all right as the pullets mature, especially if they are running in fresh green grass. Upon this point the article mentioned above, (quoting from Wallace's book), says: "The bright yellow on legs and beak so much desired does not always come with the chick. By far the greater number of the females show a tawny, dusky, or very dark color; and the males that show a clear bright yellow usually have flesh colored or pale yellow legs and beak when fully matured, and the plumage will be lacking in pronounced distinctiveness in both the hue of ground color and harring; but those that show brownish yellow or tawny on the surface, with dark yellow plainly visible underneath, will, as a rule, come at maturity to the desired color, and the signs may be taken for the development of a bright yellow beak. However, faulty colored legs and beak seem to persist in the females, particularly if the plumage tends to dark in color."

Another writer says:—"In the females, especially of Barred Rocks, perfectly clear yellow legs and beaks are rare, these sections being more or less 'smoky' at first, and gradually improving in color as the pullet comes to maturity."

A Beginner's Questions.

Mr. Editor:—1st. I desire to know if it would be advisable to start experimenting in the poultry business with ten common hens, and hatch my favorite fowl, P. Rocks?

2d. When would P. Rocks lay if hatched the last of May or first week in June?

3d. Would ten hens be too much for the average rooster?

4th. How little space can be used for run with fair results? W. F. G.

Brooklyn, N. Y.

1st. It would be an advantage to gain some experience before starting in on a large scale, and you could hatch your favorite P. Rocks with the common hens. That is the way much hatching is done.

2d. They should lay at five to six months old, if well fed and well cared for.

3d. No; ten to twelve hens is about right for a rooster.

4th. We recommend one hundred square feet of run per fowl, but you can do well with fifteen to twenty square feet per fowl, if you will spade up the ground frequently to keep it from becoming foul. It is a good deal of work, but it can be done.

Cockerel's Comb Lops Over.

Mr. Editor:—I hatched twenty-one Buff Leghorn chicks, and the cockerels are now developed enough for me to select the best looking ones to keep for breeding. One of them seemed to grow much faster than all the rest, from the very start, and is now about one-half as large again as his brothers. He is an extremely fine specimen as to color, and I would not hesitate to keep him to breed from if I felt certain of his comb. His comb apparently grew as rapidly in comparison to the combs of his brothers as he did himself, and it is now so large that it hangs over to one side, like the comb of the full grown hens, and does not seem to have much stiffness. The combs of all his brothers stand up well, and I want to know if you think his comb will stiffen up as he matures; and if not, would you use him to breed from?

Schenectady, N. Y.

R. H. G.

If you are breeding exhibition Buff Leg-

horns, it would be wise to shun the cockerel with the lopping comb. Lopped combs disqualify, hence the cockerel is disqualified, and you ought not to breed from a disqualified specimen. The Standard says: "The comb in a specimen which merely turns over a trifle from the natural upright position, is not to disqualify; for under all the disqualifying clauses the specimen shall have the benefit of the doubt."

In any case the lopped or drooping comb is probably due to its being too thin at the base, and that thin base would be in a measure transmitted to his offspring, hence it would be wiser not to breed from him.

It isn't certain, either, that a precocious bird like that is the best to breed from. The fact that he grew faster than his brothers, isn't proof of greater vigor, certainly not of greater staying power.

"Ripest apple soonest rotten,
Hottest water soonest cold,"

used to be an old song, and your cockerel that matured quickest is quite likely to "go to pieces" quickest, and may before Christmas be the poorest specimen in the lot.

Wants Good Layers and Good Size.

Mr. Editor:—I desire to get a good laying strain of chickens, as well as good size, and take the liberty of writing you for the information, knowing your experience would be of value to me in the selection. Which of these three would you advise—Black Langshan, Barred P. Rock, or White Wyandotte?

I have S. C. B. Leghorns, but desire to get rid of them on account of size. J. H. H.

Olympia, Ga.

All three are good layers, and excellent table fowls (not "chickens") and of the three we esteem the White Wyandotte the best. The Black Langshan has the disadvantage of the blue-white skin and dark pin feathers, which makes it a less attractive carcass when displayed in markets; and the Langshan is rather more a fancy fowl, hasn't been "selected" for egg production. You don't see them advertised much by practical poultrymen; nor do we find them on practical poultry farms.

The White Wyandottes and Barred Rocks are the favorites among practical poultrymen, and have been long bred (many strains of them) for egg production, so that they are great layers. The Rocks are not quite so yellow skinned as the Wyandottes, and are a bit thinner breasted; the latter being noted for quantity and quality of breast meat. As they are when bred for eggs, equally good layers, the chief difference in favor of the White Wyandottes is in the clean yellow skin, and more breast meat, and by so much we consider them the best of the three you name.

Color of Pekin Ducks' Eggs.

Mr. Editor:—Please answer through FARM-POULTRY what colored eggs Pekin ducks lay—white or green? G. F. L.

Dundee, Ill.

They should be white, or creamy white; but some supposedly pure Pekin ducks lay greenish eggs. There is a difference of opinion among duck men with whom we have talked about this, some believing that the appearance of a greenish egg indicates a cross; but that isn't absolutely certain, any more than a single comb in a flock of rose combed chicks, or a feather stub on leg of clean legged chicks, indicates a cross.

Probably there is no such thing as an absolutely pure blooded duck or chicken; at some time in their past there has been a cross of other blood.

Making Insect Powder.

Mr. Editor:—Please let me know what you think of tansy as an insecticide. Any quantity of the herb grows in this vicinity, and I thought that by cutting it in August, drying it and grinding it to powder, it might make a good insect powder for dusting hens. Would it be better alone or mixed with tobacco dust? M. J. D.

Lynn, Mass.

We never tried tansy for such a purpose, and think that it is rather unnecessary trouble to cure and grind it when we already have so many good cheap dusting powders. Tobacco dust alone is one of the best, and it can be bought for five cents a pound. You will find the formula for a good dusting powder for fowls or chicks on page 242, June 15 FARM-POULTRY, in the article, "Enemies to Poultrydom."

New Printing Catalogue.

The Eagle Pub. Co., of Pittsfield, Mass., has just issued a fine new catalogue for poultrymen's printing for fall use, which they will send free upon application. This firm has turned out some fine work this year, and customers will find them careful, prompt and obliging. Parties wanting practical printing can get it done reasonably and satisfactorily of them.

No woman should miss reading every line of the "Free of Charge" offer we make in this issue for Marion Harland's new household series of books, the Bits of Common Sense Series.

Barred Rocks

(EXCLUSIVELY).

You know the record of my Blue Barred P. Rocks at Haverhill, Amesbury, and Boston shows. 50 choice yearling hens and 3 fine breeding cocks for sale. Write for prices and get my catalogue.

W. B. DAVIS, Haverhill, Mass.

Care of Merrimack Nat. Bank.

BREEDERS AND MARKETMEN.

OUR REQUESTS:—We make two requests of our subscribers. One is when writing our Advertising patrons always mention FARM-POULTRY. Another is if you ask them questions, always inclose a stamp. If you observe both of these requests it will benefit you amazingly. It shows that you mean business. Remember, "Molasses will catch more flies than vinegar," and those who observe it are served first.

A BAD WICK is worse than none. Use only the Sunlight Carbon Wick, 10 cents for sample. S. G. Robinson, printer F. P., 257 Atlantic Ave., Boston.

A. P. ALLEN, Wesleyville, Pa. Lt. Brahmas, B. P. Rocks; S. C. W. Leghorns, S. S. Hamburgs; Pekin ducks. Poultry supplies at low rates.

ANNUAL SALE of breeding stock of S. C. W. Leghorn hens, \$1 each, from first class stock. C. H. Annable, Danvers, Mass.

BARGAINS in ducks; 10 big breeders just \$10, worth \$20. Bar. Rock 1 year cockerels \$5, grand breeders. Black Langshan show cock \$5; Leghorns, R. and S. C., of highest type. Wh. Rocks and Wh. Wy. W. W. Kulp, Pottstown, Pa.

C. S. CULLUM, Mendville, Pa., breeds Pekin Ducks, White Cochins, S. S. Hamburgs, S. C. White Leghorns, B. P. Rocks, and Bronze Turkeys. Fowls for sale, and eggs in season. Fit Games, eggs and fowls; write for wants.

HOUDANS—Stock in fall from best of matings. A. W. Tyler, Peabody, Mass.

KNIGHT must sell at once, 15 one year old R. C. B. L. hens, to make room for farm raised chickens. G. A. Knight, Peabody, Mass.

ROSE C. B. Leghorns specially 13 years; stock for sale. J. L. Randolph, Bartlett, Ohio.

SILVER WYANDOTTE breeders, including most of my winners, must go to make room for chicks; 25 fine hens at \$1.50 each. One and two year old males with show record at low price for quality. A good chance to get good stock. John C. Jodrey, Danvers, Mass.

WHITE Wyandottes exclusively. Early prolific laying strain, dark brown eggs, bred for practical purposes. Eggs \$3, \$1; incubator eggs, \$4 per 100. Stock in season. P. D. White, No. Attleboro, Mass.

WHITE Wyandottes, prolific layers of large brown eggs. W. E. Mack, Woodstock, Vt.

WH. WYAND. W. F. Stroud, Merchantville, N. J.

WYANDOTTES, White and Buff. Circular free. Rush Vaughan, Woodstock, Vt.

BUYERS' DIRECTORY.

CLASSIFIED ADVERTISEMENTS only will be printed under this heading; no advertisement admitted containing less than TWO lines; no display other than the initial word or name allowed; no limit to length of ad.; an advertiser can divide his copy and put the matter under as many headings as he wishes; all space used except classified headline, to be charged at a uniform price of 25 cents per line each and every insertion; no less price per line for any number of lines or times inserted; copy will be changed often as desired; about seven ordinary words will make a line; all parts of lines charged as one full line; the headlines will be arranged alphabetically, as in a "business directory."

BELGIAN HARES.

BELGIAN Hares, prize winning strain, young hares \$3 per pair. Cunnahquid Poultry Farm. Box 117, Cunnahquid, Mass.

BREEDING STOCK.

1200 CHOICE Poultry, Pigeons and Hares for sale. Nat'l color 60-page book, 10c. J. A. Bergey, Telford, Pa.

WANT ROOM for youngsters. 75 W. Wyandotte hens, also 75 W. P. Rocks at \$1 each; most of them are yearling breeding birds. F. B. Thompson, Peterboro, N. H.

DUCKS.

MAMMOTH deep keeled first prize Pekins. Second to none. Eggs, \$1.50 per doz.; \$6 per 100. Book orders early. H. G. Worth, Nantucket, Mass.

100 MAMMOTH Pekin ducks and drakes, bred for business, long bodies, broad flat backs, Rankin strain, \$1 ea. Stevens & Co., Wilson, N. Y.

EGGS.

50c. per doz.; \$5.00 per 100. Wyckoff strain White Leg. eggs, Cir. free. S. J. Bishop, Cheshire, Ct.

LINDEN LAWN Farming Co., Olney, Illinois, breeders of Wy. Wh. Leg. Pekin chicks, Bronze turkeys. Orders booked for eggs from choice matings.

FERRETS.

6000 FERRETS, pure blood, finished not akin; finest strain in the land, bred from good workers. Small, medium, and large breeds, trained, will kill rats and hunt rabbits. Price low; safe arrival guaranteed. Book, "Care and Working," free. S. & L. Farnsworth, New London, Ct.

GOSLINGS.

GOSLINGS. Bull goslings for sale. J. Murrill, Rockland, Mass.

HAMBURG.

FOR SALE, cheap, a breeding pen of G. P. Hamburgs (pure McNeill stock). Write for particulars. Arthur E. Manley, Florence, Vt.

INCUBATORS AND BROODERS.

THE PERFECTED INCUBATOR, cash. Installments, or rented. The Perfected Regulator fits any incubator; 4c. in stamps for circular. H. D. Monilton, Taunton, Mass.

FOR SALE, \$3.00 egg Monarch, \$40 each; 1 Bramhall & Dean Heater, piped for 10 ft. house, \$55; all in first class order. J. M. Mills, Cottage City, Mass.

20 CYPHERS incubators, latest pattern 300-egg size, sold cheap singly or in lots if taken before Nov. 1. Address S. care Farm-Poultry.

LEGHORNS.

A FEW CHOICE yearling Single Comb White Leghorn hens at 75 cents each; also very choice cockerels for sale at 50 cents to \$1 each. Arthur G. Synonds, West Hopkinton, N. H.

MINORCAS.

EGGS guaranteed to hatch, regardless of distance, from Rose and Single Comb Black Minorcas that have a worldwide reputation as "best for show and utility." A few good breeders cheap. Large catalogue. Box 76, Geo. H. Northrup, Raceville, Wash., D. C., N. Y.

FOR SALE—10 White Minorca hens with cock, cheap. E. L. L. Mansfield, Swampscott, Mass.

ORPINGTONS.

BUFF ORPS. Miss Edwards, exporter of winners of firsts and seconds, New York show, C. K. L. pullets. Cooley Poultry Farm, Hursley, Glouc., Eng.

PATENTS.

MONEY to patent good ideas may be secured by our aid. The Patent Record, Baltimore, Md.

PIGEONS.

HOMING Pigeons, good stock. Obligated to sell, hence cheap. pair. Geo. C. Chase, Uxbridge, Mass.

PLYMOUTH ROCKS.

APRIL and May Barred Plymouth Rock pullets. Early layers, \$1 each; cockerels not akin, \$2. Delivery October, or before, if wanted. Free range, brown egg, extra laying strain.

L. P. Van Horn, East Troy, Pa.

\$40 will buy 25 first class W. P. Rock hens and two cocks, large size, fine shape. Write at once. Stevens & Co., Wilson, N. Y.

BARRED, White and Buff P. Rocks. Sure winners. H. A. Nourse, Box 900, Barre, Mass.

W. P. ROCKS, bred for size, shape, shade. Silver; none better. Young stock for sale. Walter A. Wagner, Luzerne, Pa.

CHOICE young utility B. P. Rock cockerels, 50c. to \$1 ea. Circular. C. F. Allen, Beverly, N. J.

25 Barred Plymouth Rock cockerels, \$1 ea. April hatch. H. Haywood, Wallingford, Conn.

POULTRY PLANT.

POULTRY PLANT, sold for good reasons at sacrifice, fully equipped with buildings and tools; fine location; retail family trade established in New Haven. Box 156, North Haven, Ct.

POULTRY SUPPLIES.

HOW to make liquid lice killer, for lice, a gal. Send 5c. for formula and list of other valuable recipes. N. A. Taylor, Hyde Park, N. Y.

CHOICE clover, well cured and cut fine, \$1.25 per 100 lbs.; \$5 per 500 lbs.; \$10 per 1000 lbs. Stevens & Co., Wilson, N. Y.

RHODE ISLAND REDS.

R. I. Reds, farm bred, Premium stock at low prices. Geo. H. Adams, Chatham, Mass.

R. I. REDS exclu. Eggs and stock in season. E. A. Hall, 60 High St., No. Attleboro, Mass.

R. I. REDS, prize stock of unexcelled quality. Special bargains in cockerels if taken at once, \$1 to \$3 each. Geo. C. Chase, Uxbridge, Mass.

WANTED.

WANTED by experienced, and at present manager of large poultry farm, partner with capital to start poultry farm. Address H. L. care Dr. Lizzett, 936 W. Somerset St., Phila., Pa.

WANTED. Man and wife, experienced in handling incubators and brooders, to handle turkey, duck and broiler farm about fifty miles from Chicago. Modern plants, natural facilities excellent. Guaranteed salary with interest in profits to the right parties; state experience. Give references. Address, H. N. Norton, Oak Park, Ill.

WANTED—young man to learn poultry business. Small salary to start; good chances of advancement. Sussex Poultry Farm Co., Box 30, Newton, N. J.

WANTED. some capital to perfect and patent a number of valuable farming tools, show brooder for chickens; other opportunities in view. Tools might stand investigation; if imperative man, none other wanted. Box 11, care E. P. Poston, Mass.

POSITION as manager of a poultry farm; understands all branches, learned the business from W. Cook, England; married, no children. J. T., care Mr. Beane, 1147 Main St., Winnipeg, Man.

A PARTY to join me in the poultry business, ten years experience. Address Profit, care E. P.

WYANDOTTES.

WHITE Wyan. exclu. Prolific layers, farm raised. Eggs \$2 per 15; \$5 per 25. Incu. eggs \$5 per 100. C. E. White, Fox Chase, Philadelphia, Pa.

COCKS and hens, cock's and pul. early farm raised, well marked from noted strains, heavy laying Wyandottes. Sil. Gol. Buff and Wh. \$1 to \$3. J. Y. Patton, Box 128, New Castle, Pa.

BUFF WYANDOTTES, for the fall fairs, now ready. Ask about them. Also one silver male and six females, yearlings, good breeding birds. Dr. N. W. Sanborn, Wellesley Hills, Mass.

A Hard Experience.

Mr. Editor:—I see reports of several breeders under heading, "Why They Don't Buy," in July 1st FARM-POULTRY, and as such reports seem in order, I beg leave to add my experience to the list.

Last February I sent an \$8.50 order to a noted breeder of Freeport, Ill., for a sitting of Lt. Brahma, and one of Houdan eggs, and also a Black Langshan cockerel. Six weeks later I received the cockerel, with score card of 93 points, properly signed by a judge. On examination I found the bird absolutely without leg and toe feathers, *making him a disqualified bird*. I wrote to the noted breeder, and up to date (six months after), have had no reply from him.

I did not want any such bird in my breeding pen, and of course I could not sell him, therefore I ate him. I pride myself on my fine Langshans, and would not, under any consideration, use a disqualified bird to head a pen of prize winning females.

One thing that is a puzzle is the score card, showing a 93 point bird, when he was disqualified. Do western judges lend themselves to such fraudulent practices? I would sooner think the signed score card is a forgery. What would you think?

Such treatment is bad enough at best, but I had used all precautions to procure an unusually fine specimen; had written and described in detail the bird I wanted, and asked his price; he replied promptly, saying he could furnish such a bird as I had described, and naming his price; and I thought I had stopped all the loop holes by describing the bird I wanted, and receiving his letter stating he could send me just such a bird. I quietly sat and watched the express car, and when the bird came, six weeks later, I found to my great disappointment that the noted breeder was off the track entirely.

Then in May, almost four months after the order was sent, the eggs came, twenty-six in number. Three weeks later two delicate chicks came from the Houdan nest, and one, too weak to live through the drying off process, came from the Light Brahma nest. I made report to the Freeport breeder, and when he had nothing else to do he wrote and offered to duplicate eggs at half-price. I wrote back, thanking him for his liberal offer, and asked him if it wouldn't do as well if he sent me half the quantity of eggs, but he did not reply.

This breeder will send you on application the handsomest catalogue, with photo. and description of every known breed of fowls, also photos of one hundred or more well pleased customers, a real elegantly gotten up snare. Enough of him.

A short experience with a well known Massachusetts breeder, to whom I sent \$5 for a sitting of Buff Plymouth Rock eggs. Very promptly he sent the eggs, and when I opened up I found three cracked *from being frozen*. I set the remaining twelve, and did not get the first chick. I reported; he wrote he would duplicate if I sent him a dollar. I did so, and he, thirty days afterwards, probably when his orders were getting scarce, sent me fifteen duplicates. One week after setting I find seven infertile eggs, and it looks very much like they will turn out duplicates in the true sense. If you know of any other southern breeder thus treated by northern or eastern breeders, do tell him of me. Misery loves company. Yours truly,

West End, Ala. C. C. BRAXTON.

[This is a pretty tough experience, and we would like to do a little investigating of that score card matter, if you will send us the name that is signed to the score card. Either the judge is a fraud, or the breeder is sending out fraudulent score cards; in either case a little daylight let into the business will do good. There is lots and lots of humbug in the "private" scores that are sent out, or advertised.—ED.]

Color of Minorca Eggs.

Mr. Editor:—Noting in June 1st FARM-POULTRY a communication about Black Minorca eggs, that they should be pure white. True, but there are exceptions. I bought two fine hens from Mr. G. H. Northup, and, as everybody knows, he has the best of Minorca stock. They came out of

his best breeding pens, but they lay tinted eggs; but if you see the fowls they are as fine as silk, and as no other breed of rooster can get to them, you will see the tinted eggs come naturally.

I wrote Mr. Northup, and enclose his reply. Please publish same, and it will allay suspicion as to tinted Black Minorca eggs.

Charleston, S. C.

K. W. R.

Following is Mr. Northup's letter:

"Dear Sir:—Yours of the 20th of February is received. In reply, I sometimes get tinted eggs from Black Minorcas, but they usually lay white ones. It is no indication that they are not good hens, because I have seen those which had won very high honors in the shows lay tinted eggs. It is the same with other breeds to do the same way. Some Brown Leghorns lay tinted eggs, but they usually lay white ones, as do the Minorcas; and some Plymouth Rocks lay white eggs, but they usually lay brown ones.

Very truly,

GEO. H. NORTHUP."

A Good Season's Work.

Mr. Editor:—Here is my hatching record for 1899. I would like you to tell me what you think of it.

Hen No. 1—Set Feb. 24th, on 11 P. R. eggs. Hatched 9; 1 chick died from chill.

No. 2—Set March 5th, on 12 P. R. eggs. Hatched 9; 1 chick dead in shell. Six of this brood died from cold, as hen would not hover them enough.

No. 3—Set March 12th, on 11 White Wyandotte eggs, which had been kept two weeks. Hatched 8, of which 2 died later.

No. 4—Set April 3d, on 10 White Wyandotte and 3 P. B. eggs; the Wyandotte eggs were a week old. Hatched 7, of which one chick was crushed when five weeks old. Reset on 13 P. R. eggs; hatched 7.

No. 5—Set April 5th, on 13 R. I. Red eggs. Hatched 10. Hen was reset on April 28th, on 12 R. I. Red eggs; hatched 7.

No. 6—Set April 10th, on 13 R. I. Red eggs. Hatched 9; 2 dead in shell.

No. 7—Set April 10th, on 12 P. R. and R. I. Red eggs. Hatched 8; 2 were killed on the nest, and two eggs, taken out on 22d day, had dead chicks in them.

No. 8—Set April 16th, on 13 P. R. eggs. Hatched 7; 1 dead in shell; two eggs were rotten, rest infertile.

No. 9—Set April 16th, on 13 P. R. eggs. Hatched 9.

No. 10—Set April 26th, on 12 R. I. Red eggs. Hatched 9; 2 killed on nest.

No. 11—Set April 28th, on 13 P. R. eggs. Hatched 5; 2 dead in shell.

No. 12—Set May 4th, on 13 P. R. eggs. Hatched 9.

No. 13—Set May 9th, on 13 P. R. eggs. Hatched 9; 1 dead in shell; 3 chicks died after being put out in open air coop.

No. 14—Set May 15th, on 13 R. I. Red eggs. Hatched 11; 2 eggs infertile.

No. 15—Set May 15th, on 11 R. I. Red eggs. Hatched 5; 1 dead in shell.

Broods 4, 5, 6, 7, were put into two brooders; five chicks died after heat was discontinued. Broods 8 and 9 put under one hen; two chicks died after going into open air coops. Broods 14 and 15 put under one hen, and none lost so far.

I have at present 12 White Wyandotte chickens, 44 R. I. Reds, and 54 B. P. R.

Summary of the hatches:—

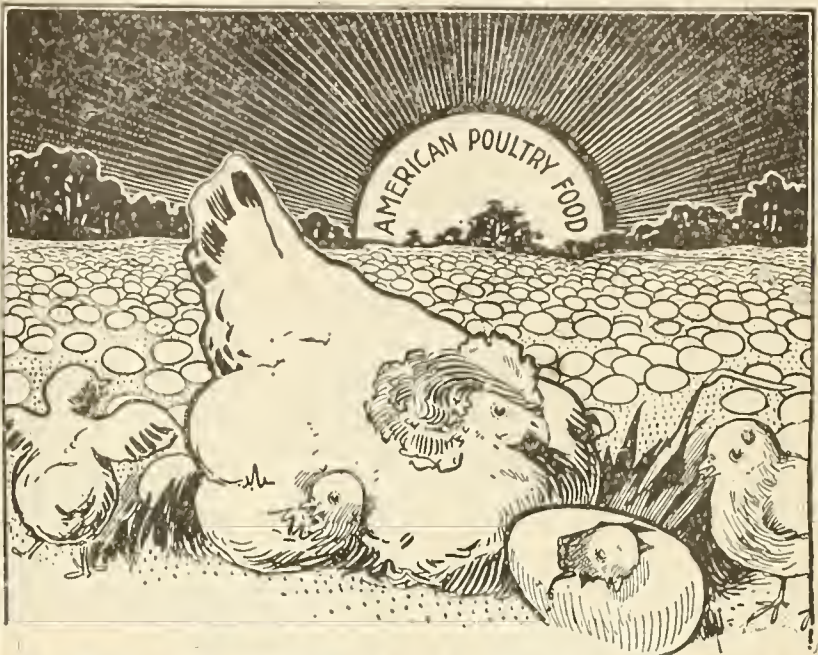
Eggs set,	211
Chicks hatched,	138
Chicks died,	26
Chicks dead in shell,	11
Infertile eggs,	36

A number of fertile eggs were broken during the hatches, as the hens were set in the hen house and occasionally disturbed.

Boston, Mass.

AMATEUR.

[An average of eight chicks per sitting, or hatching about 79 per cent of the fertile eggs, is very good for a season's record. The loss of nearly 19 per cent of the chicks hatched, is not a bad showing, considering the fact that a number of the chicks lost were killed by the hens, and not through errors in care or feeding. Altogether it is a better record than many "professionals" can show for this season's work.—ED.]



Chicks Well Hatched are Half Raised

American Poultry Food

Does the Other Half

A Pure Grain Food in Sealed Sacks.
Not a Medicine.

It develops young chicks rapidly, permitting of their early market at highest prices and brings pullets to laying maturity very rapidly.

FREE

Our booklet, "Practical Poultry Feeding," tells exactly how to use it for all purposes. If you have not already sent for this invaluable little book, do so at once—it will help you over many hard places in the poultry business. **Sent free prepaid on request.**

If your feed dealer does not sell American Poultry Food, write us giving his address.

Address, SCIENCE DEPARTMENT,
THE AMERICAN CEREAL CO., 1355 Monadnock Bldg., CHICAGO, ILL.

- FISHERS ISLAND FARM -

We have several hundred extra fine Cockerels bred from our best birds, which won many prizes for us last season.

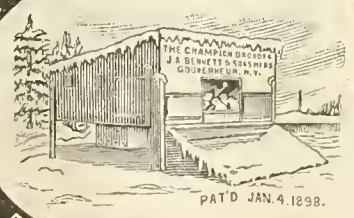
Barred, White and Buff Plymouth Rocks; Cornish and White Indian Games; Pekin Ducks; Ring Neck Pheasants; Bronze Turkeys, and Belgian Hares.

Write for Free Catalogue.

We won more than two-thirds of all prizes competed for by us at New York, Boston, and Hagerstown last season.

Via New London, Conn.

E. M. & W. FERGUSON, Proprietors,
Fishers Island, N. Y.



NO MATTER HOW COLD IT GETS

little chicks may be successfully brooded if you only know what means to employ. The brooder that sits flat on the ground won't do, there is too much risk from colds, congestion, diarrhoea, etc. It must be raised off the ground. This brings us to

The \$5.00 Champion Brooder.

IT IS KNOWN BY ITS WORK.

It is simple and effective in construction and at its price is the very best article of the kind on the market. The secret of its great success is in its effective and perfect radiation and distribution of heat. It is double floored which prevents entirely cold feet—warm feet means warm chicks. Is in no way influenced by sudden changes in temperature. It is simple and perfect in ventilation, affording always plenty of fresh warm air. Because of its perfect construction it requires the minimum of fuel in heating.

This is what Michael K. Boyer, the greatest living authority on artificial incubation, says of the Champion Brooder in the May issue of "A Few Hens": "The Champion Brooder manufactured by J. A. Bennett & Sons, is giving the very best satisfaction and after a fair trial safely recommend it. At \$5, it is the cheapest and best of the good brooders on the market."

Don't buy a brooder of any kind until you have seen our illustrated and descriptive catalogue of the Champion. We send it FREE to all inquirers. Address,

J. A. BENNETT & SONS.
Box F. P. Gouverneur, N. Y.

In the Indian Territory.

Mr. Editor:—For the present it is my intention to raise chickens and eggs for the market, putting the birds on the market as fast as they are large enough for fryers or broilers, and after I have stocked my plant with hens of my own raising sufficient to furnish me with eggs enough to supply my customers, and keep my incubators turning out enough chickens to meet the demands on that part of my business, I shall probably add the breeding of fancy chickens, as the call for this class of eggs and birds is increasing every day.

F. S. D.

Muskegon, Ind. Ter.

At the R. I. College.

Mr. Editor:—Having been a student in the poultry class at the R. I. Agricultural College, Kingston, R. I., last winter, I was interested to see what they were doing this summer, so last week I made a visit there. I found Mr. Arnold in charge of the department, and found them thoroughly in earnest to advance the interests of poultry culture.

They are trying four different kinds of nest boxes, one of them their own device. They are experimenting with different breeds and crosses, and making more crosses this year than ever before. They are crossing R. I. Reds on most of the different breeds they keep, and are keeping a record of all experiments, so as to note results.

They dissected all chickens that died this spring and summer, and found that a great many died from tuberculosis, some died from improper food, and others from not properly absorbing the yolk of the egg, owing to improper incubating.

They were also experimenting on feeding three pens of chickens on different kinds of food. One pen was fed the best of liver and hard boiled eggs; they all died in three weeks. Another pen was fed grain wholly; most of them lived and did fairly well. The third pen they fed grain and meat meal; this pen did splendidly, and were fine looking chicks; they fed green food to pens one and three.

Last winter's poultry course was such a good success they have decided to lengthen the term to six weeks next winter, and they are preparing to accommodate a great many more students. There is one thing the students had impressed upon their minds very thoroughly last winter, and that was never to sell anyone stock or eggs unless they were giving the buyer the money's worth; and never to advertise stock or eggs for sale unless they had the very best of stock in their yards—stock they would be proud of. So in after years when I see any of the poultry class of '99 advertising I shall feel that the stock is all right. Some of the class will come to the front, and they will soon be advertisers in F-P.

I saw recently that a person said they would have to be in the ring to get to the front; but to get to the front lays in the man, and not in any ring. If a man has a love for the poultry business, and sticks to it, culls out all but his best stock, and advertises wisely, how can he help going to the front by perseverance and push? Then those same qualities, coupled with fair dealing, will keep him at the front.

T. N. S.

Attleboro, Mass.

Fearing Competition.

Mr. Editor:—I have watched the papers, and noticed the great number that are getting into the chicken business, and with new systems of cold storage and the great west to compete with us, I think it will not be long before the price comes down considerable. Of course I know it is your business to make things as rosy as possible, but that won't keep up prices. I know you will think I am a pessimist, but I don't think so at all; it is only looking at things as I think they will be in a short time in this country. You know when there is anything worth taking up here everyone wants to take a hack at it, and it soon gets overdone. Over in England you could not "knock it into them with a club," so if you could compete with the imported goods I think you would have a sure thing for a long time. Besides, they don't understand much about artificial incubating and brooding, and I think a man could get a good trade hatching chicks and selling them right

off. I believe there is more money made here at present, but the money would go further there, so that you would be content with smaller profits; and besides, you would have green food nearly all the year around, and would not want such expensive coops.

Wyckoff, N. J.

A. E.

[While this is only a part of the letter, we consider it worth printing, because that competition and overproduction bugbear worries quite a good many. It is true there are a great number "getting into the chicken business," but not a few are regularly getting out of it, so that the total of increase is much less than our friend thinks, and the normal increase in production is no greater, (we doubt if it is as great), as the increase in consumption of poultry products. There is abundant proof of that in the high prices of eggs and chickens all this season; those high prices are only an incident, 'tis true, but they point a moral.

The west is growing rapidly in population, and increase in consumption of poultry products there is quite as rapid or even more rapid than the increase in production; so that eastern markets, while well supplied with western poultry and eggs, are by no means overloaded with them.

Cold storage isn't a competing factor. Cold storage is a balance wheel, taking up the surplus of one time to give it out again at time of scarcity. Were it not for cold storage the market would simply be swamped with eggs in April, May, and June, and dressed poultry in summer and fall, and then in winter none but the "multi-millionaires" could even look at eggs, and poultry would be conspicuously absent from our dinner tables all winter and spring. Don't deceive yourself. Cold storage is a decided advantage to both western producer and eastern consumer.

As to the eastern producer, his only concern is to produce a *better article*, then he need never think of western competition. The market men will welcome him with open arms, and his pocket-book will be weighted with shekels.—ED.]

Not Food Enough.

Mr. Editor:—Will you please answer the following in your next issue? I have twenty-four hens and one rooster, housed in a coop 9 x 6 feet; it is 9 x 5 feet high; its aspect is south. I have a splendid run for the poultry, with excellent shade, and feed them only two meals a day. One is of whole grain, which I vary, such as corn, oats, barley, etc.; at night I give them a mash composed of hulled oats, bran, corn meal, linseed meal. Twice a week I add meat meal, and two or three times a week I get small bones from the butcher, and break them up the best I can with an axe, (I have no bone cutter). I may here state I vary the above food each day, adding cut clover, cabbage, beet or any other vegetables at hand. Furthermore, I keep the coop extremely clean, well disinfected, and ventilated. At present windows are out all the time, and the door is open till late, still I am getting only three eggs a day. Could you surmise the reason?

Ashton, R. I.

T. M.

[The probable reason is lack of sufficient food. Read the article, "Feeding Fowls for Eggs," in November 15th, '97, F-P., and compare the shortcomings of your food ration with that liberal one. Fed as you feed, fowls will keep in good health, but they haven't the surplus of which to make eggs; and there must be a surplus over and above the common bodily wants before eggs are produced.

Your coop is too small for twenty-five birds; we wouldn't put more than ten in it, —and they may be lousy, your coop cleaning and disinfectants don't reach the body lice.—ED.]

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The hen that leaves her nest after a few days sitting because she does not hear the chirp of chicks, is something like the merchant who quits advertising after the first few "throws" because his first calls haven't filled his store with clamoring customers.—JED SCARBORO, in *Printers' Ink*.

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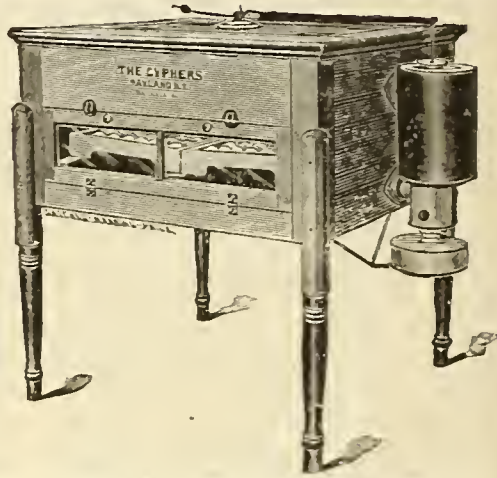
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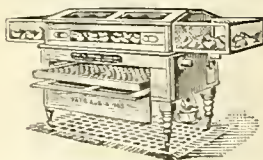
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Buying in the East.

Mr. Editor:—I notice a letter from a Washington party in July 1st F-P., in regard to buying eggs from eastern breeders. Now, much as I dislike to say it, the facts are just this:—We of the coast states must have new blood for our yards occasionally, but when we answer supposedly reliable advertisers, and send our money, we cannot be sure that we are going to get fertile eggs, or, for that matter, anything at all. On June 1st I ordered two sittings of eggs at \$2.50 each of —, Freeport, Ill. Eggs were packed very poorly, seven broken, the rest covered with filth, and looked as though they had been set before, as they had been pencil marked, then the marks rubbed out and written over, etc.

I turned eggs carefully for three days, then put them in the machine. At end of eight days tested them, and threw every one out;—not a single fertile egg in the lot. I wrote the party, stating the case, being very careful not to allow my personal feelings to show too plainly, and instead of at least giving me a gentlemanly letter, he has not even answered at all.

Last year I had very much the same experience with another party, at Delavan, Wis., but in his case eggs were packed in a codfish box. That is the reason we feel that we don't get a fair shake. Out here we have to be at least polite to our customers, and when they do not get a fair per cent of fertile eggs we do not write them a scorching letter, telling them they do not know anything about eggs, etc. No more eastern dealings for me. I have been in the poultry business for twenty-three years, and have raised thoroughbred chickens all the time, and *know* eggs when I see them.

H. S.

Tehachapl, Calif.

[We can hardly think you picked out the best eastern breeders to entrust your order to; if you had, think you would have had better success. Neither do we think you were wise to order long distance eggs in June. At that time of year the temperature runs high, and there is almost a certainty of eggs being spoiled by the heat. Certainly the Freeport eggs, as you describe them, were suspicious, and we think you have a claim upon the party. Why not enter a formal complaint through the paper in which you saw his advertisement?—ED.]

Is Well Pleased.

Mr. Editor:—I have never been a subscriber to your paper, because I am "on the go" so much I prefer to buy it at the news stand wherever I happen to be. I do not like to take up your valuable time, but wish to say a few words regarding your Washington correspondent's complaint against our eastern breeders. I think it too bad that anyone should be so disappointed and disgusted, and I also think it passing strange that he should have struck shoal water on both sides.

Let me give you my experience of the present season, and our friend in the far west will see that we have some square men. I ordered early in March four sittings of R. I. Red eggs—52 eggs. They were packed in a basket, and when they arrived three were broken. I set the remaining 49; one fool hen broke four, and I got 41 chickens from the other 45 eggs. One was a cripple, and was at once disposed of. The 40 were robust as one could wish, and every one grew alike—24 pullets and 16 cockerels. At nine weeks I sold broilers at 70 cents each, and at thirteen weeks old at \$1 each; at thirteen weeks old the pullets weighed an average of strong 3 lbs., and the cockerels 3½ lbs. each. I ordered 300 more eggs, which hatched just as well, and chicks doing all they can.

Now for a P. Rock breeder. I ordered 60 eggs; hatched 56 chicks. One got killed by a box falling on it, and the other 55 are in fine feather, and will now tip the scales at better than 2 lbs. each, although not hatched till May. I ordered 179 more eggs of the party, and those are now hatching, and hatching well.

Lot No. 3, I ordered 78 White Wyandottes and Golden Wyandottes of another party; result 27 chicks of the most mixed up mess one ever saw. They would run anything from a crow to a seagull, with a little "heu" mixed in. However, I got five good G. W. pullets, and two fine W. W. pullets, so I

won't kick, especially as I sold the other twenty for broilers at 75 cents each, at nine to ten weeks old.

Now I don't lay too much blame on the last breeder, for his intentions might have been excellent, and his eggs were *cheap*; but they proved to be very expensive in the end. My idea is that the best is the cheapest. To sum up, I am decidedly pleased with the treatment I have received from eastern breeders. I have not had a sick chicken; a very few have been killed accidentally; and all are growing well.

F. C. D.

Waquoit, Mass.

Broilers and Cold Storage.

Mr. Editor:—Kindly advise me if broilers hatched early in the winter, say in December, can be kept in cold storage until the market demands them at good prices, say in February, or later, without their quality being impaired so as to reduce their value below fresh killed stock?

Will the market price of "squab broilers" in February be materially less for stock thus kept than it is for fresh dressed stock?

Again, will broilers, boxed and then kept in cold storage, be affected in flavor by the wooden box, or freezing, so as to affect its market value?

J. N. S.

Stillwater, Minn.

[Yes, freezing will lower the selling value of broilers and all other dressed poultry—below the value of fresh dressed stock.

We see no reason, however, why the boxes should flavor the broilers if they were put in cold storage directly after being boxed; freezing effectually checks odors from lumber, just as it arrests decay in animal tissue.

You could arrange with your commission dealer to put your stock in cold storage, if you wanted to, and he could put it upon the market in time of scarcity and high prices. Generally the commission dealers return the shipper the price of the day goods arrive, then themselves put goods in cold storage, and pocket the profits.—ED.]

Copperas for Disinfecting.

Mr. Editor:—How much copperas shall I add to a bucket of water for use in disinfecting runs?

S. B.

Winterport, Me.

[Two or three ounces of copperas to an ordinary waterbucketful.—ED.]

PAINT TALKS, XIX. "PERFECT PAINT."

There is no such thing as perfection in this world; therefore, there is no perfect paint, and the use of paint is in itself, an admission that wood, iron and steel are not perfect building materials. If they were they would not require the protection of paint.

But if there is not perfection there is always a *best*. The best building is that which endures the longest, the best paint is that which gives the best protection and the longest wear. If ordinary dull colors satisfy there is nothing superior to good metallic browns, oclures, lampblack and graphite for exterior house painting, and zinc white ground in oil with such colors will lighten the tint or shade without affecting their durability.

But usually taste requires something brighter than these dull earth colors and carbons—a white base, to be tinted or shaded at will, is generally demanded. This white base may be either pure white lead, pure zinc white, a mixture of either with some "inert" pigment (barytes, gypsum, etc.), a mixture of lead and zinc, or combinations of the two with one of the inert materials.

If pure lead be used it will readily lose its gloss, darken and chalk or dust off—and the dust from it is poisonous. Pure zinc can be used under proper conditions by a skillful painter in such wise that it will come as near being a perfect paint as any yet devised. Usually, however, such conditions and skill are not available; but under no conditions will pure zinc lose its gloss, change color, or chalk off. This fact naturally points to the use of combinations based on zinc, and nearly every white or tinted paint in the market that is not made by a lead corroder is really such a combination. These paints, when they bear the name of a known paint manufacturer, are, generally speaking, superior to pure lead in every respect, and far more economical in the long run. They do not discolor, chalk off, nor peel off, and many of them are guaranteed for a term of years. They do not require frequent renewal, and when repainting is thought desirable it is usually more for the purpose of "freshening up," than for renewal, as the protective quality of the coating is lost very slowly. Indeed, I have seen work done with such paint where at the end of twenty-two years the paint, for protective purposes, was still in excellent condition. No one ever saw a job done with pure lead on the outside of a building where the paint was not all dried up and washed away within half that time, or where the paint had not lost its protective value in much less than half that time.

While a perfect paint is unattainable, the best is easily found, for generally speaking the best paint is a combination paint containing zinc white, and the market is full of such paints.

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DON'T WAIT A MINUTE.

PACIFIC POULTRYMAN, Harry Hy Collier, Editor,

TACOMA, WASHINGTON.

Box 722,

Fowl Hts.

Do—daff, daff, daff, chick,
 Weeping our affliction
 As a— the little things
 Run in the direction,
 Create a care of them we have,
 And not kindly treat them,
 But about three months from now
 We will kill and eat them;
Petersburg Chronicle Telegraph.

That hard-boiled egg gave me a headache.
 You shouldn't eat hard-boiled eggs. I didn't
 eat it. A fellow hit me with it behind the
 ear. — *Cleveland Plain Dealer.*

Mrs. Boarder: How do you find the chicken
 soup, Mr. Boarder? Mr. Boarder: I have
 no difficulty in finding the soup, madam, but
 I am inclined to think the chicken will prove
 an alibi. — *Credit Lost.*

Henry came home furious last night.
 What was the matter, daughter?
 Why, mamma, I had put two eggs in his
 luncheon, and forgot to cook them. — *Detroit
 Free Press.*

"They say a carrier pigeon will go further
 than any other bird," said the boarder, between
 bites. "Well, think I'll have to try one,"
 said the landlady; "I notice a chicken doesn't
 go very far." — *Tit-Bits.*

Young Husband—Are my eggs done yet,
 darling? His bride (in tears)—O Jack! I
 have boiled them for an hour and a half, and
 they are not soft yet. — *Exchange.*

Hicks.—What, are you a hen-fancier? I've
 always heard that hens ain't profitable.

Wicks.—I know; that's the opinion of my
 next neighbor, Mr. Petts.

Hicks.—Does he keep hens?

Wicks.—No; but he has a garden. — *Evening
 Transcript.*

Hen Would Adopt Kittens.

An Auburn lady tells of a curious incident
 that came to her notice recently. A sitting
 hen stole away her nest, but after a day
 or two the nest was discovered, and the eggs
 were taken away. Soon after a cat that had
 three little kittens found the nest and took it
 as a home for her young ones.

The old hen had remained on the nest part
 of the time, and near it all the time, and when
 she saw the kittens there she seemed to regard
 them as her progeny. At any rate she adopted
 them straightway, and didn't propose to let
 the cat have anything more to do with them.
 She would hover them in the nest, and cluck
 to them with the greatest complacency. The
 cat didn't want to give up her children, and
 the hen and the cat had a pitched battle.

The result was a division of the spoils.
 The cat ran away with one of the kittens,
 while the hen remained in possession of the
 two others. A member of the family discovered
 the hen's theft, however, and restored the
 kittens to their real mother. The old hen
 made such a time about it that she had to be
 fastened up in a coop. — *Kennett Journal.*

How He Knew the Score.

A couple of Topeka poultrymen were going
 out on the street car the other evening, and
 were talking chickens at a good lively rate.
 A stranger sitting across the aisle, who they
 claim was a preacher, became much interested
 in their conversation, and the three got to
 talking. In fact, even the motorer, who was
 also a chicken crank, was keeping his
 weather eye turned towards them.

The stranger said he had some mighty good
 birds—had one Plymouth Rock cock that
 scored 97 points. Our friends became quite
 interested in their new found acquaintance,
 and asked him where he got such a good bird.

"Oh, just picked him up," said he. "I got
 him for a dollar."

"Ninety-seven points is a pretty good score
 for a White Rock, isn't it?" queried the poultry-
 men. "Who scored your bird, and where
 was he scored?"

"Don't know," replied the preacher.

"How do you know, then, that he scores so
 high?" was asked.

"How do I know? why, that is the number
 on his leg band."

And the car nearly ran away, the motor-
 er took such a fit. — *Poultry West.*

A Story of Sterility,
SUFFERING AND RELIEF.

[LETTER TO MRS. PINKHAM NO. 69,186]

"DEAR MRS. PINKHAM—Two years
 ago I began having such dull, heavy
 dragging pains in my back, menses
 were profuse and painful, and was
 troubled was leucorrhœa. I took
 patent medicines and consulted a phy-
 sician, but received no benefit and
 could not become pregnant. Seeing
 one of your books, I wrote to you tell-
 ing you my troubles and asking for
 advice. You answered my letter
 promptly and I followed the directions
 faithfully, and derived so much benefit
 that I cannot praise Lydia E. Pink-
 ham's Vegetable Compound enough.
 I now find myself pregnant and have
 begun its use again. I cannot praise
 it enough."—MRS. CORA GILSON, YATES,
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"I had been sick ever since my mar-
 riage, seven years ago; have given
 birth to four children, and had two
 miscarriages. I had falling of womb,
 leucorrhœa, pains in back and legs;
 dyspepsia and a nervous trembling of
 the stomach. Now I have none of these
 troubles and can enjoy my life. Your
 medicine has worked wonders for
 me."—MRS. S. BARNHART, NEW CASTLE,
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 new type, with Colored Plates. That edition
 also has, since 1885, been many times reprinted,
 with occasional minor corrections. But the
 time has at length come when an entirely
 NEW EDITION seems to be demanded. In
 this edition, fully one-half of the contents
 have been

Entirely Rewritten,

and the remainder thoroughly revised.

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 BLY ENLARGED, and two of the Colored

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